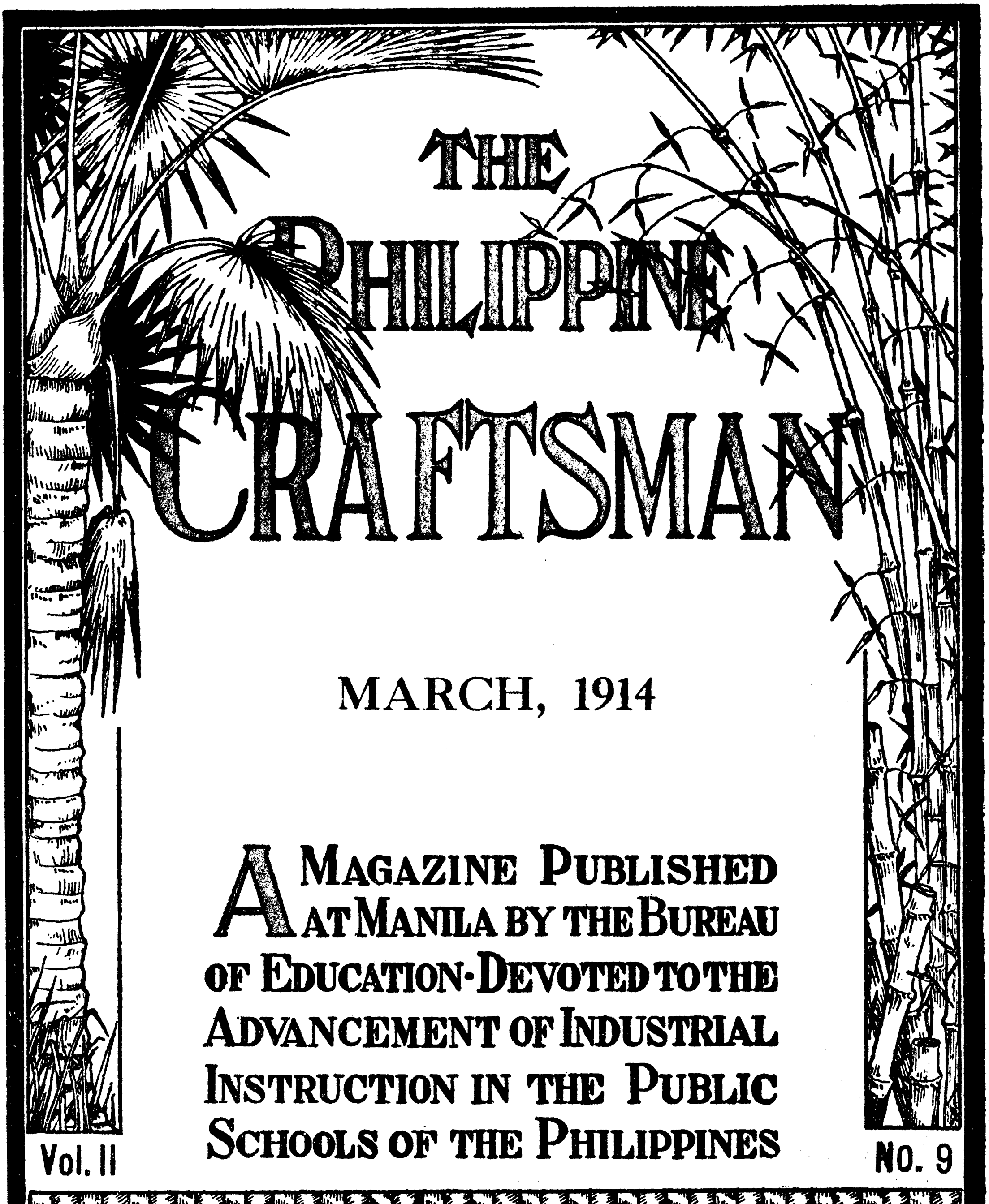

THE PHILIPPINE CRAFTSMAN

MARCH, 1914

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The Philippine Craftsman

VOL. II MANILA, MARCH, 1914 No. 9

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"ONE of the most important principles in the administration of all schools of art and industry is that the entire industrial education is based on the close relation and mutual assistance of school and workshop and, as far as possible, on the practical demands of industrial life."

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The Philippine Craftsman

VOL. II MANILA, MARCH, 1914 No. 9

THE 1914 BASKETRY EXHIBIT.

By LUTHER PARKER.

THE most notable point with regard to the basketry exhibit of this year was the uniformity in workmanship and design. The Bureau of Education has carried on a campaign for standardization that has borne results. From Cagayan to Surigao the same types have been sent in with but little to denote their origin.

The second most notable point has been the large number of types of native baskets in bamboo-nito or all bamboo that have been copied from indigenous types.

COMMON BAMBOO BASKETS.

In Plate I there is shown a number of native baskets that are duplicates of old types of basketry some of which are closely akin to Javanese and Bornean kinds.

In the upper row there is shown from left to right, first, a miniature bamboo-nito rice-holding basket from Pangasinan, covered with a miniature winnowing basket of the same material. This makes an attractive trinket basket. The second basket is from Iloilo Province and is a nice trinket basket. The next two boxes are unique buyo boxes after an old Iloilo model. Note the zigzag decorations of the side of the bottom basket. The nito is sewed through the strip of bamboo that forms the side, an old Malaysian form of decoration. The top is decorated with black wood inlaid on white wood, the design representing two birds quite highly conventionalized.

To students of basketry the symbolism of these native types makes a much more interesting study than the evolved or copied types such as Polangui and coiled baskets.

The last basket on the right in the upper row is a miniature camote basket of the Benguet Igorots which serves as a trinket basket.

In the lower row from left to right, number one is a harvest basket of Palawan; number two, a trinket basket of Iloilo Province; number three, an Ilocano fishing basket from Pangasinan,

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with superimposed blackened bamboo spokes; number four, a very old type of holding basket in a weave common to the Skarans of North Borneo, the Tirurays of Mindanao, and the Javanese; number five, an oblong buyo box from Iloilo; and number six, the very interesting ceremonial marriage basket or "tacuyan" of the Batangas Tagalogs. This basket is not only useful

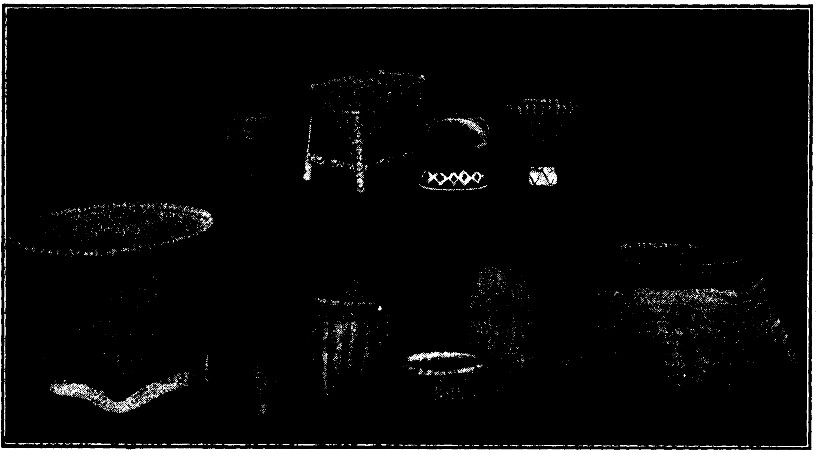


Plate I. Native types of baskets.

Plate II. Some archaic types from Palawan.

in the homes of the pupils for holding rice but is also a possibility as a trinket basket, especially when covered with a winnowing basket as is number one in the upper row.

The Ilocano fishing basket with black spokes has been modified during the last year in several divisions in such forms as wastebaskets, sewing baskets, and workbaskets and has been well received by the public this year.

The interest displayed by basketry teachers in the native types and decorative designs has been very encouraging and although a busy teacher has little time for research work regarding the significance of native designs yet some idea can be gained of such subjects from the perusal of articles in THE PHILIPPINE CRAFTSMAN written by those who have better opportunities for study.

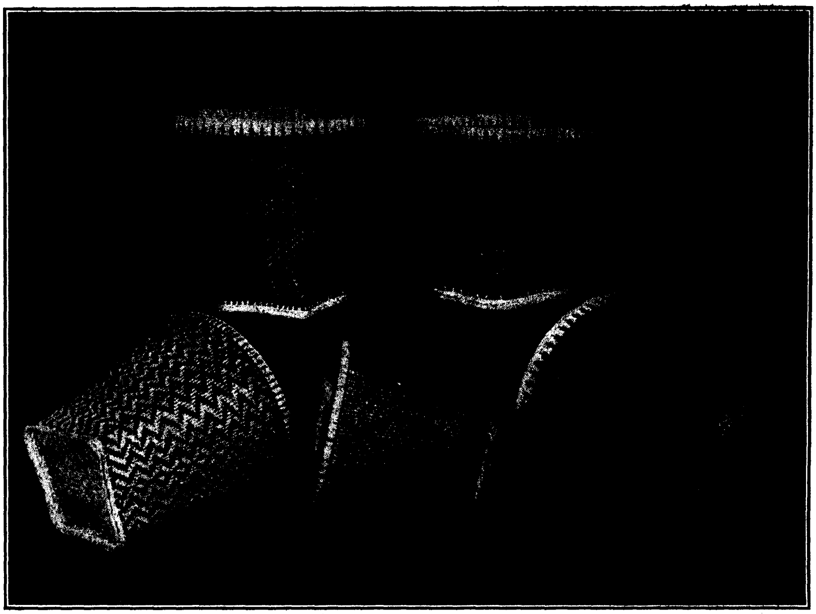


Plate III. The Palawan harvesting basket.

During the past year much has been done in the way of clearing the way toward a better understanding of the symbolism of Philippine decorative design and with the intelligent coöperation of collectors it will be possible in a few years to have as complete an understanding of Philippine basketry as there now is of Indian basketry.

In Plate II a number of Palawan baskets are shown from the private collection of Mr. R. B. Robinson.

The large basket in the center is the rice-harvesting basket of Cuyo, with the typical Cuyo rim perforated and decorated with a nito binder. The small basket of similar type above and to the left is the Cuyo planting basket, used for holding the seed of the upland rice which is planted much like corn.

The small basket in the lower right-hand corner is the seed basket of Calawit, Busuanga. The rim is finished with a type of the centipede weave in nito. The design is exceptionally even and the weave fine. Much interest attaches to the decorative designs of the Palawan baskets but the limits of this article forbid elaboration thereon.

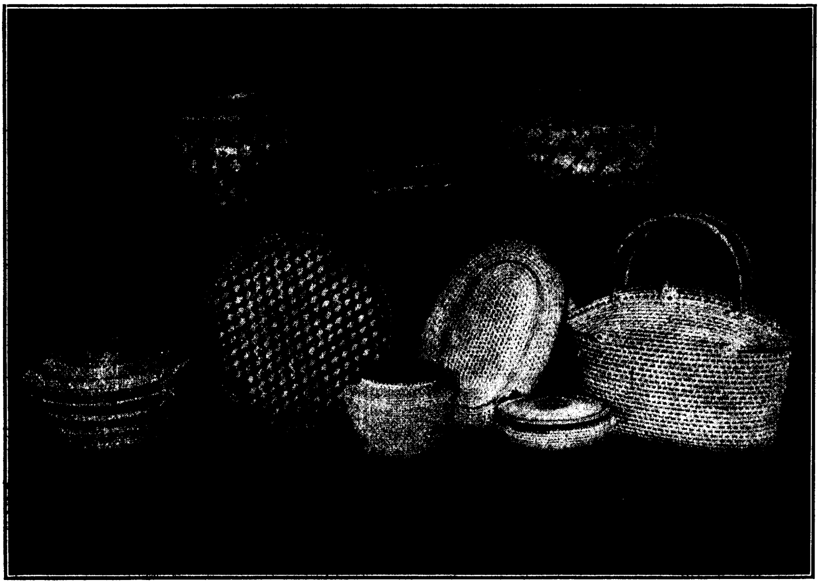


Plate IV. Bamboo baskets for export.

A very fine cigarette case of blackened bamboo from Busuanga and two buri buyo boxes in the mad weave are seen directly over the big basket. These buri boxes are for use in the field and are hung on the back of the user. The small covered basket at the left of the big one is a buyo box of north Palawan, for use in the house. From baskets such as these there could be developed a large trade among those who appreciate fine work and baskets with interesting symbolism in the decorations.

Plate III contains five baskets of the Palawan harvesting-basket type, two of them with the Palawan rim and three with the Cuyo rim.

The decorative design in each case is elaborate and significant.

In future studies of design the name and meaning of each design will be given attention. These baskets should make good sellers as wastebaskets.

BAMBOO BASKETS FOR EXPORT.

In Plate IV a number of baskets of bamboo are shown, all of which are evolved types and intended for export.

In the upper row the two outside baskets are made entirely from bamboo and came from Pampanga. They are designed for use as workbaskets and may be lined by the purchaser. The one in the middle of the upper row is a new type for this year and comes from Camiling, Tarlac. It is an all-bamboo handkerchief box, and nests, a very essential quality in an export type.

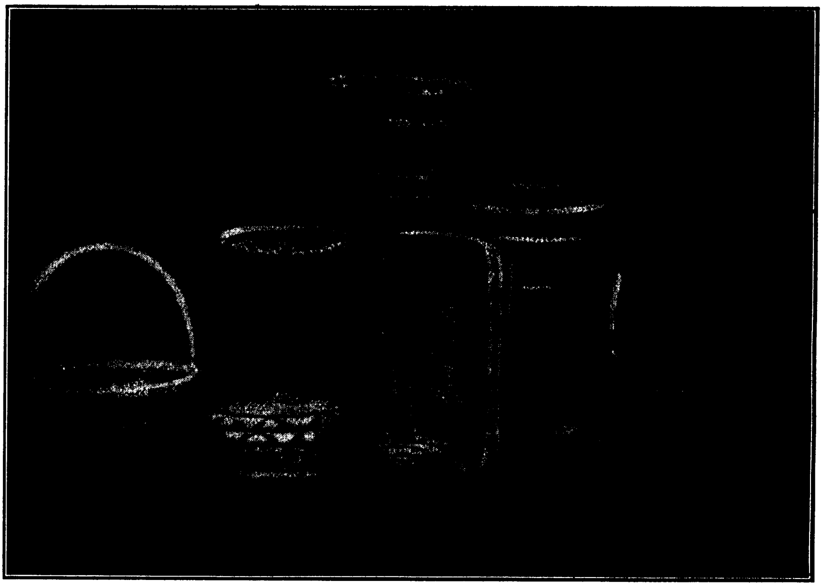


Plate V. Standard types of Polangui baskets.

In the lower row three types of baskets are shown. The first basket on the left is a bamboo-nito collar box. The clasp only is of rattan. This box would be better with rattan spokes. This basket comes from Tuguegarao, Cagayan.

The next one to the right is a winnowing basket with a mosaic design in colored bamboo strips. The edge is bound with nito. This basket comes from Iloilo Province.

The four remaining baskets are of bamboo, almost entirely, in the coiled weave. These baskets were made in Bulacan Province, the home of the Baliuag bamboo hat.

Most of the above-named baskets are of too recent introduction to be able to properly evaluate them but it is believed that they are worthy of perfecting. Should they prove to be popular in the United States or Europe it would be possible to produce them in large quantities since bamboo is quite universally distributed in the Philippines.

POLANGUI BASKETRY.

Plate V shows a number of standard types of Polangui baskets. These baskets are probably the most ornate of all Philippine baskets and appear to be growing in popularity. It is unfortunate that this type of basketry requires raw materials of a character difficult to secure in thickly populated districts where workers abound. The advance of cultivation drives out the materials needed for these baskets and where the material grows plentifully, as in Mindoro and Misamis Provinces, there are few persons available to work it up into baskets.

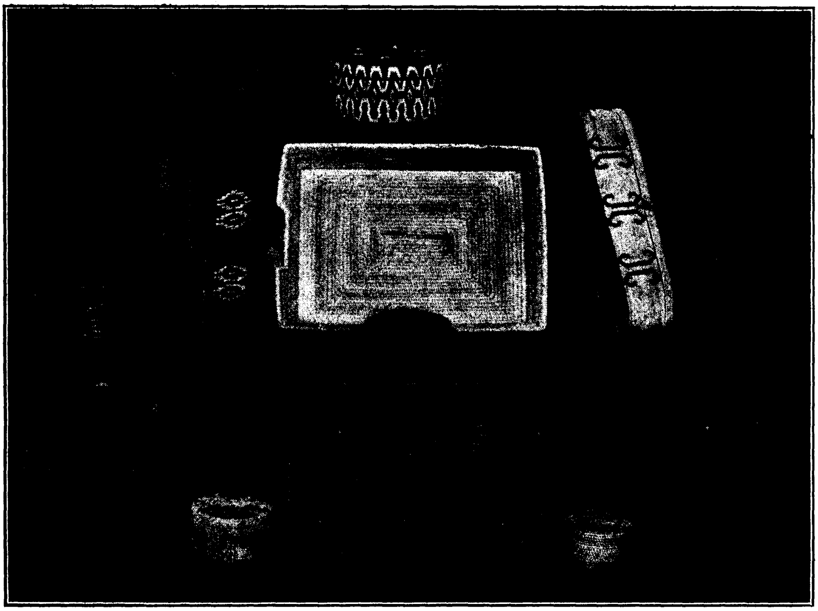


Plate VI. A group of coiled stem baskets.

During the coming school year the making of this type of basketry will need to be given special consideration and perhaps be materially restricted since it would not be wise to encourage pupils to learn to make Polangui baskets where the raw materials for such work are limited. In Polangui, Albay, where this basket originated, great difficulty has been encountered during the past year in securing enough material for making a few hundred of these baskets for the 1914 Exposition.

The principal types are shown in Plate V. In the upper row the wastebasket from Albay is shown between an open workbasket on the left from Leyte and a covered workbasket on the right from Leyte.

In the lower row the Bohol desk basket occupies the center with a Bohol thimble basket at its base and a collar box from Oriental Negros on the right. The covered lunch basket at the extreme right is from Albay and was much sought this year.

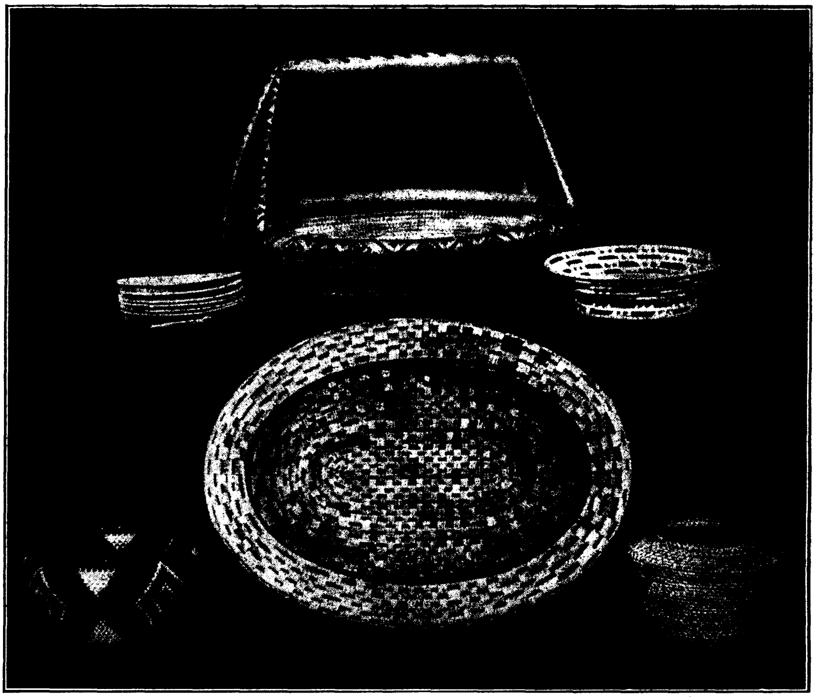


Plate VII. Some coiled strip baskets.

The covered workbasket at the left of the thimble basket is from Samar and the market basket at the extreme left is from Leyte.

These baskets are becoming popular in the United States and large orders are being filled from the present exhibition by local agents buying for substantial firms in the United States.

Baskets should nest wherever possible as shipping space is valuable.

Design, both constructive and decorative, should be very carefully supervised by competent instructors.

COILED STEM BASKETS.

In Plate VI fourteen baskets are shown woven from rattan, nito, kilog, and lukmoy.

The white desk tray in the center is of rattan and comes from Nueva Vizcaya where rattan is very plentiful. The dark desk basket just below is of nito, and was made in Samar, the home of the nito coiled basket.

The tie box to the right of the rattan desk basket is from Union Province, while the white button box just under it is from Nueva Vizcaya. The button box to the left of the black desk tray is from Cagayan and marks a distinct advance in fine rattan weaving.

Plate VIII. Karagumoy and buri in the mad weave.

The black-and-white collar box in the center of the top row is of kilog and rattan and was made in Nueva Vizcaya.

The collar box on the left in the upper row is of kilog as is the open workbasket at the right in the same row. This kilog work comes from Laguna where it originated. The jewel box just beneath the kilog collar box as well as the small black tray in the center of the picture and the larger round tray in the lower left hand corner are of kilog and from Laguna.

The collar box to the left of the jewel box is of nito in the lupis coiled weave as is the small tray to the right of the tie box. This tray was made in Camarines. The kilog basket in the lower right-hand corner comes from Laguna.

COILED STRIP BASKETS.

In Plate VII six baskets are shown four of which are new types.

The market basket in the center of the upper row is of coiled karagumoy strips with lukmoy and rattan body. This basket is from Albay and is a new type. It has not seen enough service to determine its durability and should be carefully tried out before many are made.

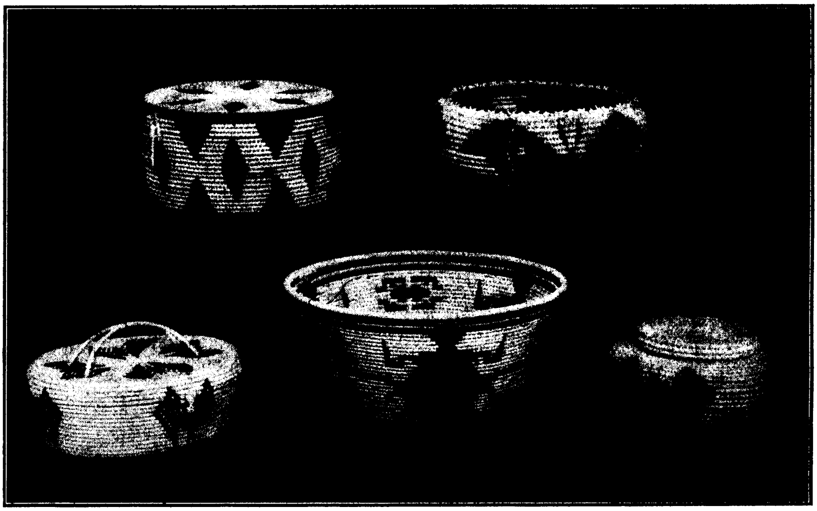


Plate IX. Abaca and maguey coiled baskets.

The large tray beneath is of lupis on rattan and was made in Bohol. Its durability has not been tested.

The striking black-and-white workbasket in the lower left-hand corner is of lupis on bacog and originated this year in Albay.

The jar-shaped basket in the lower right-hand corner is of bamboo coiled work and originates in Bulacan.

The small tray just above is of buri-leaf strips coiled on lukmoy and comes from Mindoro.

To the left of the karagumoy market basket are six small pin trays from Samar in lupis coiled on rattan.

The baskets in this group have not been given a long enough trial to be sure of their practicability as yet.

PLATTED BURI AND PANDAN.

Plate VIII shows an attractive line of karagumoy baskets from Albay Province in the mad weave and the common mat weave, and some fine buri-leaf baskets from Romblon, Capiz.

It is interesting to note the preservation of the mad weave in isolated communities such as Romblon, Catanduanes, Guimaras, and a few other out-of-the-way places. A comparison of these baskets with those of Java, Celebes, Sumatra, and Borneo is significant as to the original distribution of the ancestors of the Visayans and Bicols.

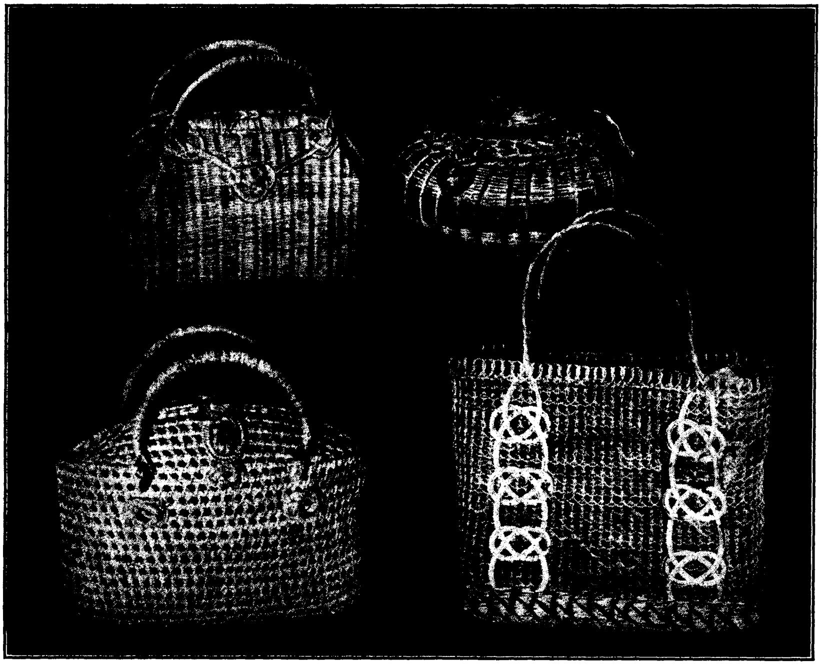


Plate X. Air-root baskets from Tayabas.

The center basket in the lower row as well as the second one to the left are from Romblon and are made of buri leaves. Nearly all the rest are of karagumoy and in the mad weave except the one to the right with the butterfly design which is in the plain mat weave. The small button box below the butterfly is from Sorsogon. This line of basketry is very attractive and should be given more attention. The pandan is a very widely distributed material and easily obtainable. The lasting properties of pandan baskets have not been thoroughly tested yet.

COILED FIBER.

Plate IX contains five baskets of abaca and maguey coiled on rattan.

These fibers are excellent and lasting materials for school work and are obtainable in many places. The principal home of the abaca is in southern Luzon and the Visayas, while maguey is quite extensively cultivated in the Ilocano provinces and parts of the Visayas.

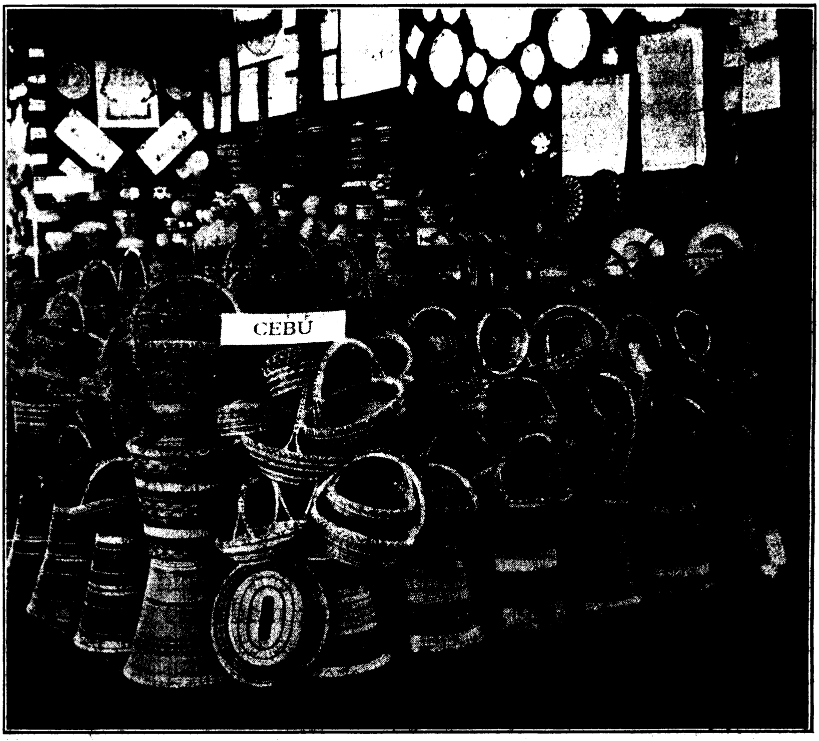


Plate XI. A display of "Polangui" basketry.

Very fine work can be obtained in this type of basketry.

The collar box in the upper row, left side, is of abaca with a Bureau design. It was made in Leyte. The open workbasket at the right is of abaca coil with an original design of the noted Philippine moth.

The large open workbasket in the center of the lower row is of coiled abaca with a Bureau design. The proportions of this design are not perfect. This is an Albay basket.

The covered basket on the left, with the handles, is of maguey and was made in Ilocos Sur as was the one on the right. The exhibit in coiled basketry this year was much better than that of previous years and there was much less imitation of Indian designs. This line of basketry will bear development.

AIR-ROOT BASKETS.

Plate X shows four baskets made from the air root known as lukmoy in Tayabas. The handbags are designed to supersede those at present imported from Japan and sold in considerable quantities in Manila.

The covered workbasket originated in Tayabas and is a popular type and was widely copied in other school divisions.

It is hoped that the above illustrations and comments on the principal types of basketry shown at the 1914 Exposition will inspire the field to greater efforts in the production of ordinary baskets for home use and of artistic baskets for home and foreign use.

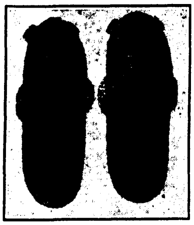
As the school year closes each teacher should ask himself two direct questions. What seeds have I saved? What seeds will I need next year? A rapid review should be made of the garden requirements with the object of having definitely in mind what must be done next year. The teacher should prepare to meet these requirements. Of the many things which will likely be needed, there is no doubt but that seeds, either for the present time or for planting when the school year opens in June, will be one of them. These seeds should be available. If not, why? Every teacher remembers his difficulties of the past year in securing seeds at the time when the garden should be planted. He and the boys doing home gardening made the excuse that they had no seeds. Do not try to use this excuse next year, as the amount of seed which the teacher or pupil has available depends directly upon his own ability in planning the work. Some things you must plant in June. Will you be ready? Last year all schools were asked to plant certain native vegetables. Many teachers stated that they did not have seeds as these plants matured in the community at other times of the year and seeds had not been saved. You will be asked to grow native vegetables next year and to emphasize the use of native plants in the home gardens. How about those native seeds! Do you have them available now? If not, secure them. Make arrangements for saving seeds when the plants are growing. When the new school year opens you will be expected to have school and home gardens planted. Now is the time to plan for next year's work and while planning, why not plan your work well?

ABACA SLIPPERS.[1]

By **Raymond R. Sage**, General Office.

DATING back to the year 1906, the present industrial course, which has since been modified to conform to the advanced industrial instruction now being given, found its place in the curriculum of the Philippine public schools. Since then, native industries have been improved and in some instances developed. New industries and handicrafts have been introduced and the bountiful storehouse of Philippine grasses, sedges, etc., has been liberally drawn upon to furnish school children with suitable materials for their industrial work.

Perhaps no other raw material has been so widely used in industrial instruction as has abaca. Extensive articles describing abaca and giving directions for its preparation appeared in Volume I of THE PHILIPPINE CRAFTSMAN. Of the numerous lines of industrial work using this material, slipper making appears as one of the more important possible industries.



Abaca sandals, Batangas type.

In the division of Capiz, a few years back, endeavor was made to fabricate a sandal from native sedges and grasses, similar to those sold in many of the Chinese and Japanese "tiendas" throughout the Islands. The work at first was crude, and as more "nobby" and up-to-date slippers were desired the making of grass sandals and slippers was partially discarded and in their stead abaca slippers with plush tops were experimented with. (Plate I.) This type at once became popular, but as the consensus of opinion was that "all abaca" slippers should be made, the slippers with plush tops were soon discarded for slippers of that class.

In addition to the interest taken by the division of Capiz, the divisions of Bulacan, Sorsogon, Camarines, and Batangas have gone quite extensively into this line of industrial instruction, and have also shown marked advancement.

It is a rather difficult matter to classify the slippers now being made in the Philippines, as all contain one or more similar points. In consideration of their noticeable divergences, and from their prominence at recent Philippine carnivals, it is believed that slippers might well be classified as types of (1) Capiz, (2) Bulacan, (3) Sorsogon, and (4) Camarines.

---

[1] Acknowledgment is due to John C. Cudoba, division industrial supervisor, Camarines, and to C. E. Wright, division superintendent of schools, Iloilo, for some of the material embodied in this article.

A brief description of each follows:

CAPIZ TYPE.

The various steps in the making of the Capiz slippers are shown by Plates I and II. In making the upper sole a piece of galvanized iron No. 16, and a piece of rattan the same length are used in forming the outline of the sole. The wire is fitted snugly within the strip of rattan, so that when the rattan frame is once worked into the shape desired, that shape is retained. To the inner outline of the sole a strip of heavy abaca braid is firmly basted to the rattan. (Plate I, fig. 1.) A piece of doubled abaca braid, the ends of which are fastened firmly about 1 centimeter apart at the toe, bisects the sole outline. These strips of braid (Plate I, fig. 2) run parallel to each other and are fastened at the heel.

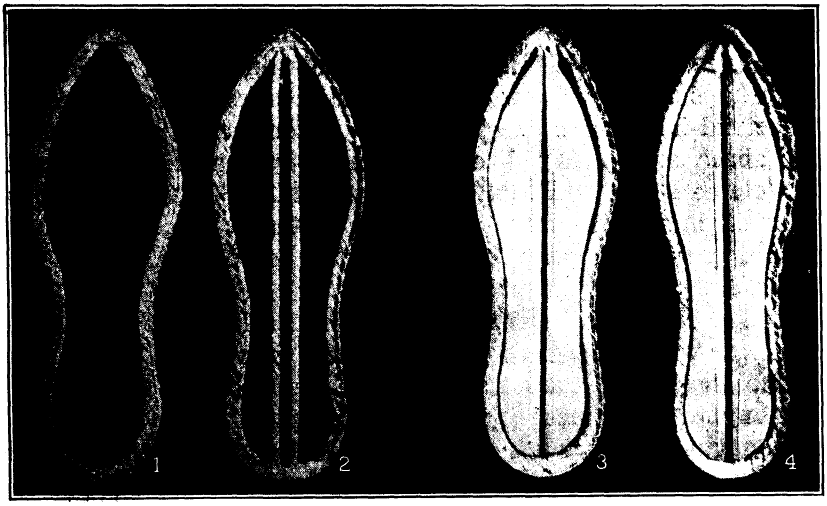


Plate I. Steps in the making of Capiz slippers.

Upper sole: (1) Rattan and wire outline to which abaca braid is basted; (2) abaca braid bisecting sole outline; (3) showing addition of areca and bamboo filler; (4) showing beginning at toe and wrapping of filler.

Two strips of areca or bamboo are used for the filler. These are cut into shape, each corresponding to ½ the outline of the sole and are fastened to the central abaca braid of the foundation. (Fig. 3.) Care should be taken that these strips are not too heavy and are prepared in such a manner as to be flexible, yet firm. The foundation of the sole (filler) is now ready for the wrapper or binding of abaca cord. (Plate I, fig. 4.) For interlacing or interweaving the cord over the foundation and outline, note Plate I, figure 4. This process is continued until the upper sole is completed and is finished at the heel.

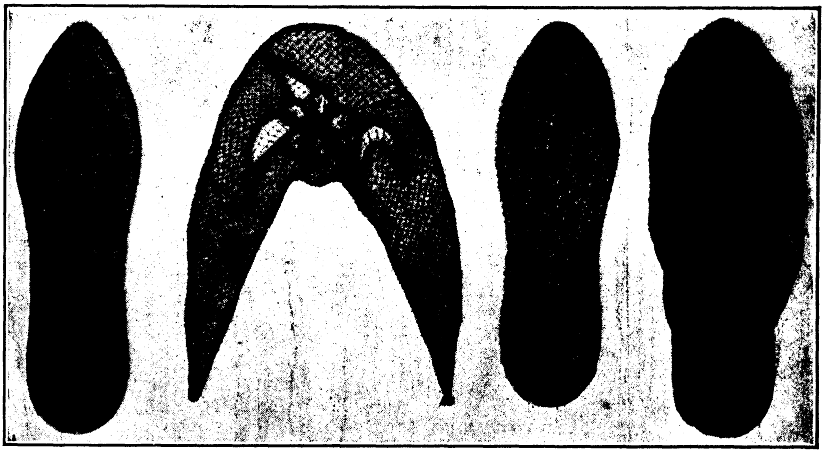
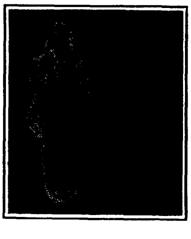


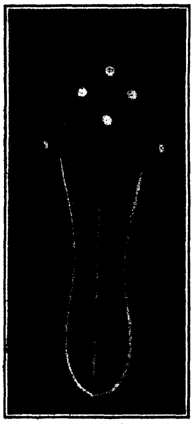
Plate II. Some steps in the making of Capiz slippers.

(1) Upper sole; (2) toe covering; (3) lower sole; (4) finished slipper.

The fabrication of the under or lower sole is made in a more simplified manner than the one described in the preceding paragraph. A shape conforming to the upper sole is cut from cardboard. Strips of abaca braid are basted to it, the first starting at the outside and gradually working toward the center. Each strip is securely basted to the preceding one. (Plate II, fig. 3.)



Capiz slippers with plush toe strap.



Fancy Capiz slipper.

The tops of these slippers are usually made of abaca macramé and are most generally woven over a cardboard form (Plate II, fig. 2) upon which the design has been previously worked out.

In assembling these various steps or parts, let us first begin with the upper sole. The toe covering is securely fastened on the under side of the upper sole with either abaca or cotton thread. The lower sole is so fastened to the upper as to completely hide the fastening of the top. Care

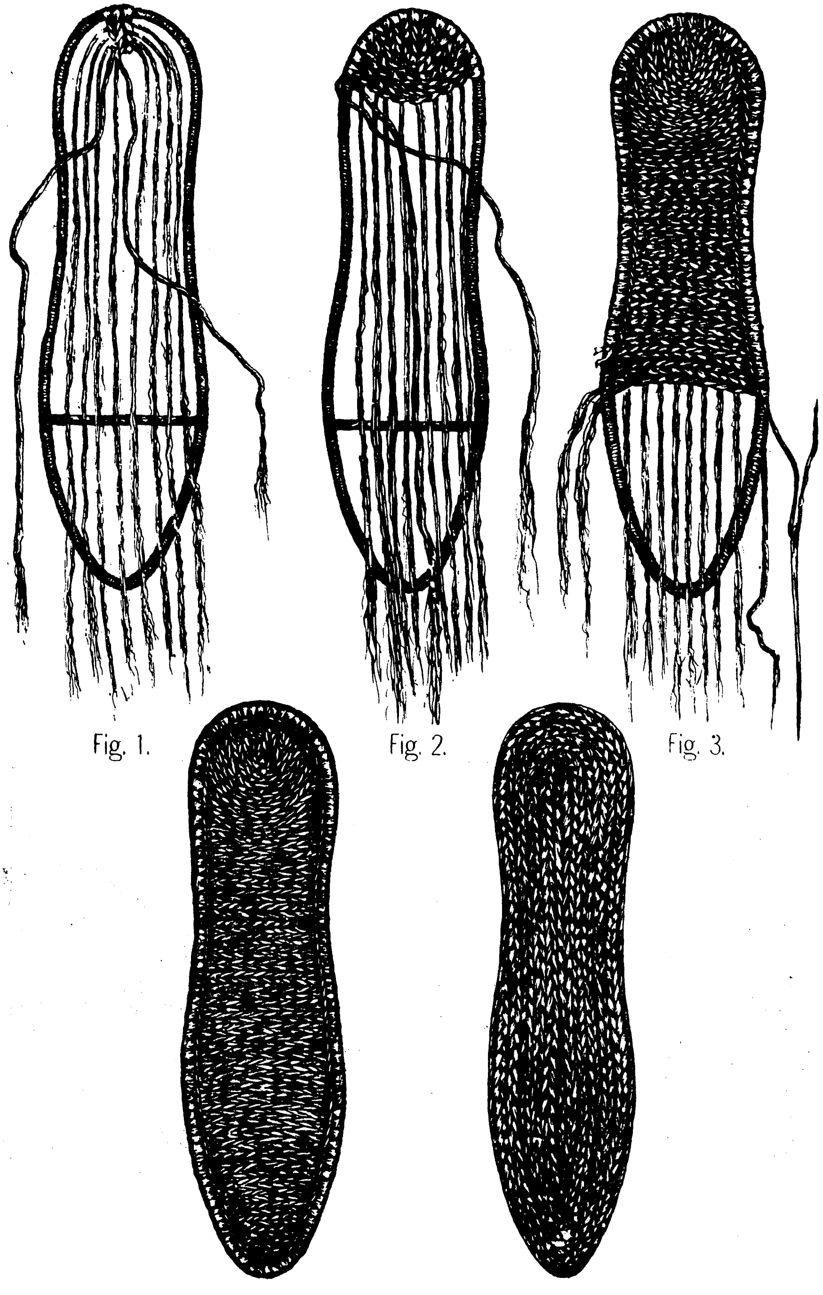


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4

Fig. 5.

Plate III. Showing foundation work of upper and lower soles of Sorsogon slippers. Figures 1, 2, 3, and 4, fabrication of upper sole; figure 5, lower sole of abaca braid.

should be taken not to expose the threads which bind these two soles.

The slipper is now completed. (Plate II, fig. 4.) It is reported that the time required by one who is proficient to make one pair of slippers conforming to the above description, is approximately thirty hours. These are neat, attractive and serviceable as house or bedroom slippers.

Plate IV. Styles of Sorsogon all-abaca slippers.

SORSOGON TYPE.

The Sorsogon type differs materially from that of Capiz. The divergences of the sole are to be especially noted.

For the making of the bottom a rattan frame 4 mm. in diameter is used, its length varying according to the size of the slipper. The ends of the frame forming the outline are joined by a lap joint, some 5 centimeters long. The frame is then bent into shape, and held in position by cross pieces of rattan temporarily tied into place. (Plate III, figs. 1, 2, and 3.)

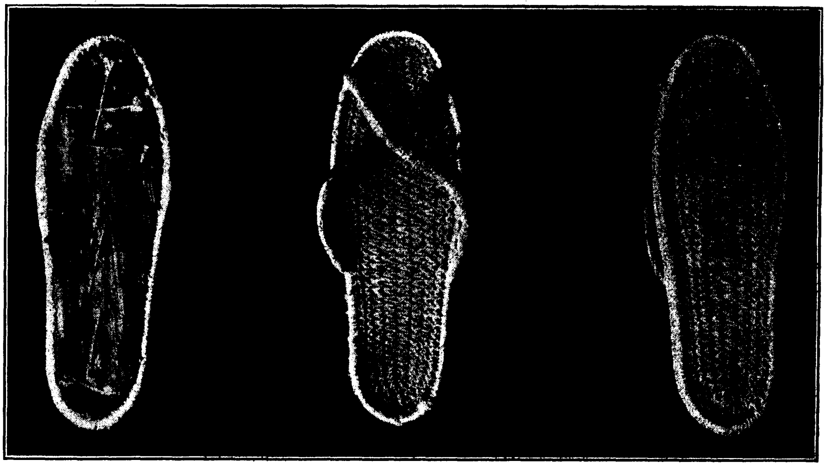


Plate V. All-abaca slipper with plush top—Bulacan.

In the upper sole, six cords (more or less) running lengthwise of the sole, form the foundation or warp. Interwoven with these are a number of abaca cords or weavers woven back and forth through the warp strings and brought around the sole outline each time. Thus the rattan frame is wrapped, and in due time the upper sole is finished at the heel. (Plate III, figs. 3 and 4.) When the above operation is finished a row of stitches is sewed around the edge just inside the rattan frame, incidentally giving a more finished appearance to the slipper and hiding the small depression caused by the cords passing over and under the frame outline.

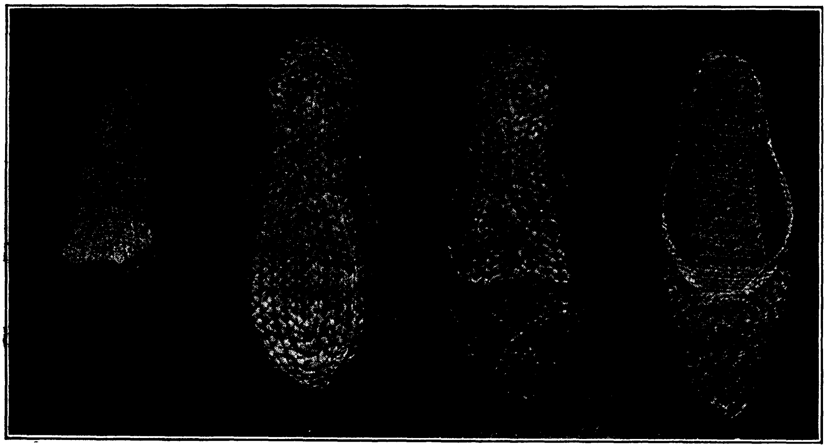


Plate VI. Camarines type.

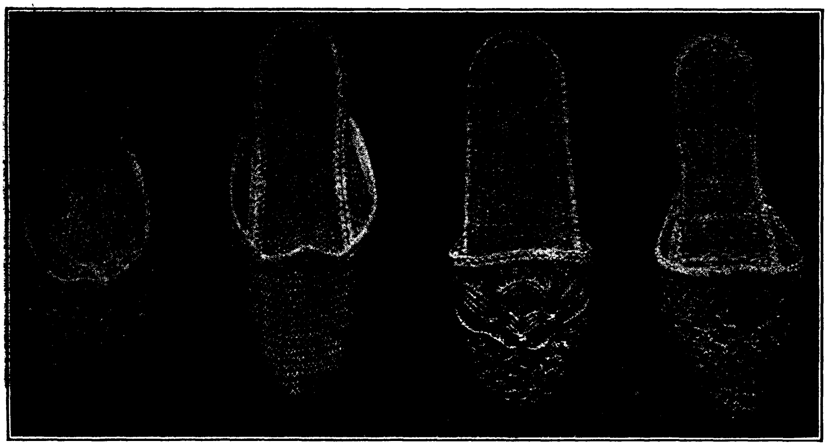
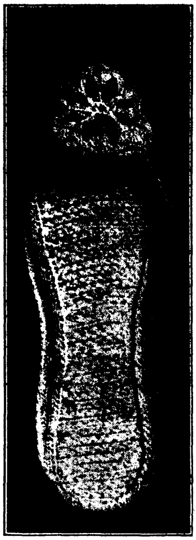


Plate VII. Camarines type.

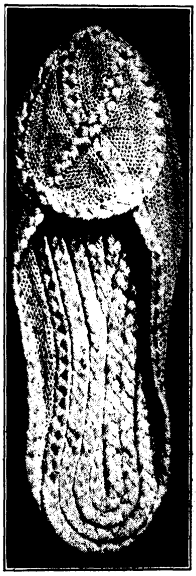
The toes of Sorsogon slippers offer considerable opportunity in originality of design. (Plate IV.) The abaca thread and braid used in their making are fastened to the lower side of the upper sole in the same manner as in the Capiz type. The lower sole is fabricated practically in the same manner as that of Capiz.



Camarines type.

BULACAN TYPE.

In the Bulacan type larger rattan frame work and heavier abaca cords are used. A noticeable distinction lies in the fact that the upper and lower soles of these slippers are fabricated in the same manner. (Plate V.) In some of the Bulacan slippers this distinction does not apply as the lower sole is of braided or platted abaca. Another difference lies in the filler, this being generally a mat of buri or pandan woven and cut to fit snugly within the sole outline between the upper and lower soles. In weaving these slippers the maker shapes the foundation as the slippers are woven, beginning first at the toe and working toward the heel completing all operations as she goes along. The toes are generally made of abaca braid or plush, few macramé or needlework toes being utilized. The process in making the soles is practically the same as the Sorsogon type, but loose abaca strands are utilized instead of abaca cord. These are twisted as desired giving a heavier or lighter body to the braid. This type of slipper is practically the heaviest one made in the Philippines, and is suitable for outdoor use.



Lady's slipper. Camarines type.

CAMARINES SLIPPERS.

The groundwork in all Camarines slippers is practically the same. This is especially noted when comparing types of the Camarines slippers with those mentioned herein. However, a wide divergence lies in the styles of the toes and soles. (Plates VI and VII.) Again another pertinent difference is noted in that in some Camarines slippers the toes are lined with abaca cloth, sinamay or other native fabrics.

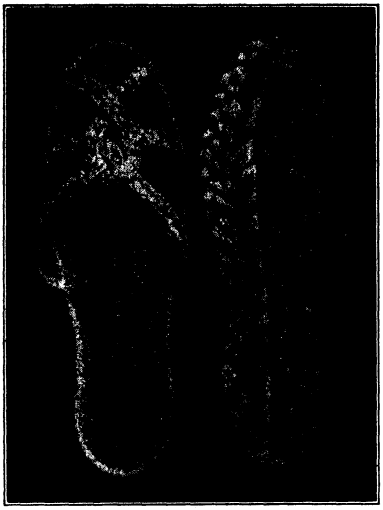


Plate VIII. Heavy abaca slipper, Bulacan type—home industry.

A double sole is made for each slipper from the sheath of the beetle-nut palm called locally "tatolo" or "talupac." The toes of this type vary in form. The shape desired is cut from a piece of native cloth over which macramé or similar needlework is worked. In some types the native cloths are not used. The cloth gives strength to the tops, and protects the foot from the rough surface of the abaca.

In binding the upper and lower soles together another point of interest is noted. A strip of heavy abaca braid is firmly sewed to the outlines of the two soles, thus joining them.

In other Camarines types the soles are fabricated practically in the same manner as those of Sorsogon and Bulacan. The

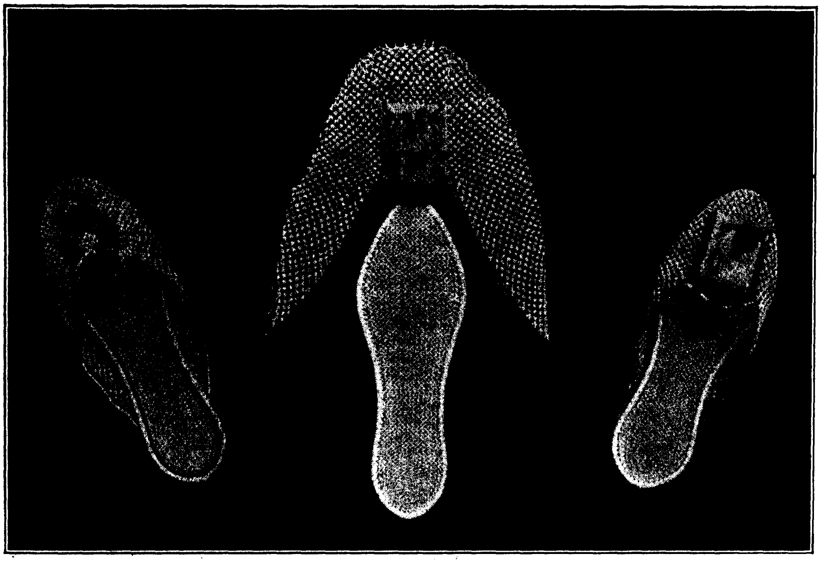
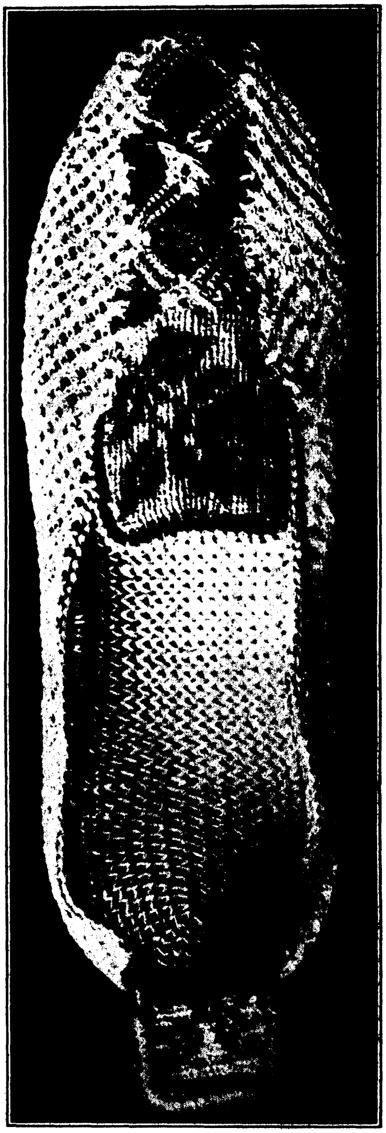


Plate IX. Philippine Normal School types.

uppers or toes are either of macramé or of a similar openwork. In some instances tops are woven on simple hand looms or ordinary square embroidery frames. These tops when completed are cut into crescent shapes, the edges of which are strengthened by bindings of cheap, native cloths. Slippers in this division have a large local consumption and excel in that they are fabricated in suitable sizes and shapes to meet the fancy of purchasers. It is reported that these slippers retail for ₱1 to ₱1.50 per pair locally, and that an experienced worker can complete a pair of slippers in two weeks, working only during the industrial period at school. As a household handicraft, where the work is continuous, two pairs of slippers can be made in three days.

In many municipalities in the Province of Camarines, school children are unable to supply the demand for slippers. Those made in the schools are superior in wearing qualities and are cheaper than the ordinary slippers or chinelas turned out by the native workmen. This condition exists in a number of other provinces.



Abaca sandal with leather sole—Philippine Normal School.

In taking up slipper making a child should possess an elementary knowledge of weaving, braiding and macramé work. The manner of dyeing is also an important factor as well as accuracy, exactness in measurement, choice of material, cleanliness, and neatness in workmanship.

A class should be supplied with a number of model soles of commercial sizes, also with standard wooden lasts. The toe, shape and size of the sole are essential points, and should be given ample consideration. Slippers in plain and standard colors are generally the most salable ones. However, two or more colors can be easily combined with the natural color of abaca making pleasing and harmonious color effects.

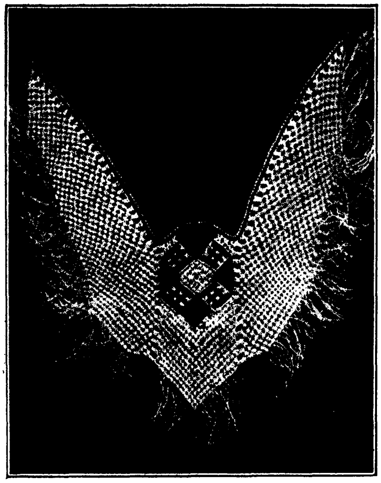


Plate X. Toe covering of macramé.

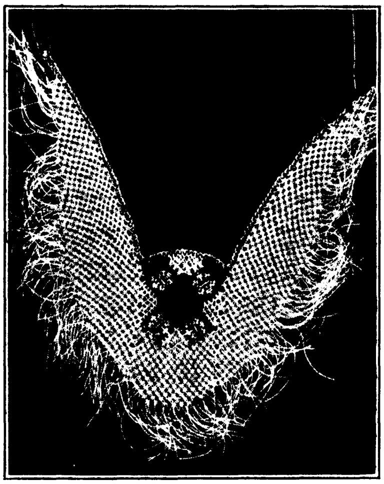


Plate XI. Macramé toe covering—Philippine Normal School.

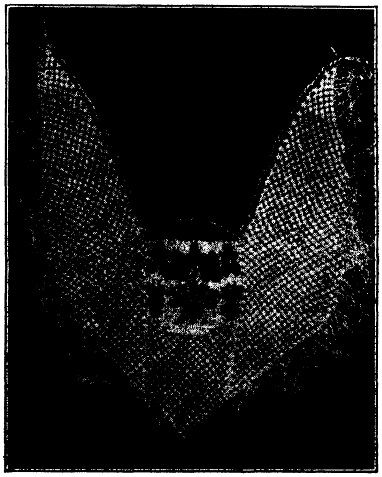


Plate XII. Macramé toe covering—Philippine Normal School.

It is not intended that workers should not receive a fair wage for their services. Yet on the other hand, providing the work was reduced to the minimum, slipper making would provide employment at remunerative wages.

Proper supervision should be exercised over colors and color schemes. In a general way slippers should be neat and nobby, but should not be produced with such a view of perfection as to make the slipper expensive, unserviceable, and noncommercial.

Slippers are desirable articles to make, and can be conscientiously recommended to receive careful attention and consideration in our school industries, and as such will lead toward the extension of this industry into the homes of the people in many provinces where it can be successfully carried out.

HOME INDUSTRIES.

In the municipality of Bulacan, Bulacan Province, a factory manufacturing slippers of heavier type and less attractive than those made in the school (Plate VIII) is in operation. It is interesting to note that the abaca utilized in this factory is imported from Davao, Mindanao. This hemp is used because it is long, has great strength, and is a better grade of white fiber.

The factory consists of some twenty workers and is financed by the Philippine Sales Agency which takes the entire output, some 250 pairs per month. An estimated average daily wage of some ₱0.60 is paid which it is believed is in excess of the daily wage for that locality.

These slippers are sold on the Escolta in Manila, and the writer has been advised that they seem to find a ready sale. Another interesting phase is that these slippers are to be tried out thoroughly in the United States in order to determine their commercial possibilities there. A similar factory has been opened in the Province of Albay in which it is planned to produce slippers of the same type.

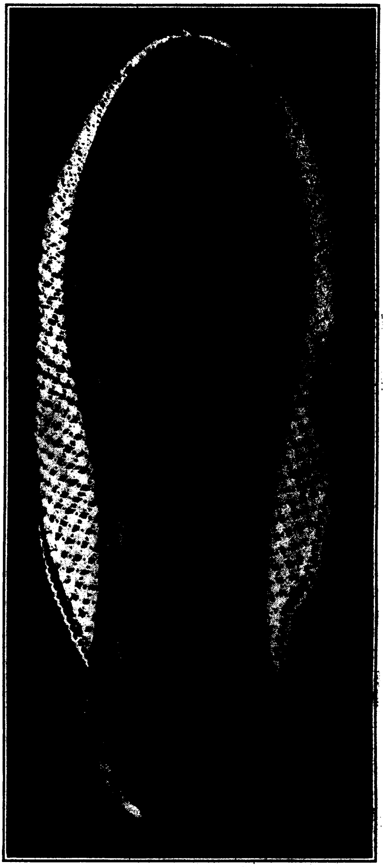


Plate XIII. All-abaca slipper with leather sole—Philippine Normal School.

It would seem that all the school types of slippers could be cheapened in construction without detracting from their strength or beauty. If this be done it is believed that they will be as thoroughly commercial as those made in Bulacan. Our slippers are too fine to be commercial in a large sense.

In bringing abaca slippers up to the present standard, the Philippine Normal School has helped materially. While the processes involved in all types are similar, the Normal School has added a number of improvements which, although the cost of production has been increased, produce superior articles with more lasting wearing qualities. (Plate IX.)

The uses to which macramé may be put, and the application of the several stitches of macramé have been exceptionally well worked out by this school. The macramé toes are constructed in such a manner that ample space is provided for the foot. This has been one of the noticeable defects of all slippers in the past. In some instances, the coverings are lined with pinolpog or similar materials in order to protect the foot from the rough surface of abaca strands or cords. (Model toes, Plates IX, X, XI, and XII.)

Another improvement which may be noted here is the addition of a leather sole to the ordinary abaca slipper. (Plate XIII.)

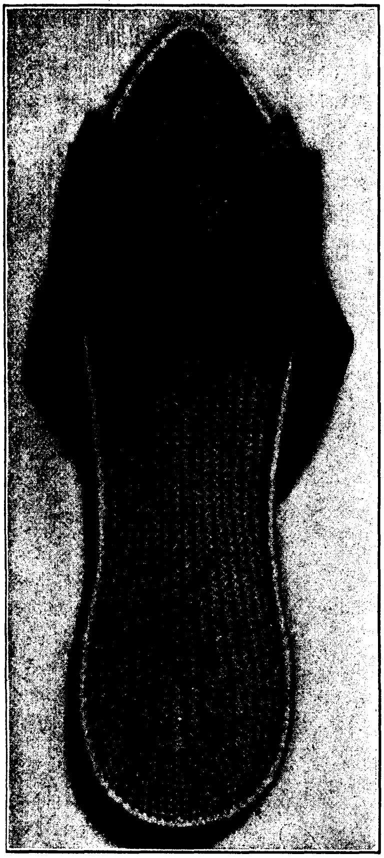


Plate XIV. Application of abaca braid in the making of toe straps.

At present there are available at the firm of Aguinaldo & Co., 813 Misericordia Street, Santa Cruz, Manila, abaca braids ranging in width from ⅛ to 1 inch. These braids can be used to advantage in fabricating the toe straps of various types of abaca and sedge slippers. Braids are inexpensive and may be dyed any color desired. Their use should reduce the cost of an ordinary slipper and at the same time enhance the beauty of the same. (Plate XIV.)

It is believed by the writer that in the past, too much time and energy have been placed on this line of industrial work in that slippers have reached such a degree of perfection and neatness that they cannot be fabricated and sold at a gain by the maker.

INDUSTRIAL MUSEUMS.

By RAYMOND R. SAGE, General Office.

THERE appears to be a definite movement in the United States and Europe to establish technical industrial museums, the purpose of which is to demonstrate the technical or industrial progress made during recent years. Such a movement seems equally appropriate in the Philippines. While we cannot look forward to nor expect to establish elaborate museums, yet the time appears opportune to establish the nuclei of such institutions.

As has been demonstrated, industrial museums in the Philippines are paying investments which give big returns considering the capital invested in them. School and household articles and mounted specimens of industrial plants and fibers common to divisions, together with information relative to their appearance, habitat, preparation, and use are the essential contents of such a museum.

Aside from the large General Office museum of craft work done in the Philippine public schools, it appears practical that each division office should be equipped with a provincial museum in which industrial articles and materials pertaining to the division are on display. Supplementary museums should also be founded in each district.

Such an organization of correlated museums will materially aid new teachers, whether they be classroom or supervising teachers, in that it will give them an insight into the quality and kind of work being done within the division or supervising district, and acquaint them with the work inaugurated during the previous year. It will show the class, standard, and quality of articles previously made and desired, as well as the local materials available and the foreign materials necessary to carry on classes in industrial instruction. Thus the work, instead of being retarded as is generally the case when a teacher is assigned to a school or district with which he is unfamiliar, will steadily advance.

Another purpose of such museums is to furnish to industrial traveling teachers and supervising teachers a convenient local supply of standard models of high quality.

The museum of the General Office may be called upon from time to time to loan model articles.

It is presumed that the question of money is one of the arguments against the accomplishment of the above-mentioned plan. However, with the coöperation of teachers and with little financial help, museums throughout the Philippines can be established in such a manner as not to deplete provincial or municipal funds set aside for industrial instruction. It is further presumed that all articles will not be purchased directly by municipalities or provinces.

Beginning with district museums, the following plan is suggested:

(*a*) Articles to be furnished by—
  1. Contribution by pupils.
  2. Purchase made from pupils' funds.
  3. Purchases made from municipal funds. (Each school of the district to furnish 5 or more articles, without cost, each semester.)

(*b*) Only choice articles of the district should be chosen from the standpoint of use, utility, workmanship, design, shape, color, and commercial possibilities.

(*c*) Upon procuring such articles for this purpose, they should be immediately taken up as municipal property, accounted for as such, and a municipal teacher should be made accountable for them.

(*d*) The display should be open for the inspection of pupils and teachers at all times. The teacher detailed as keeper of the museum should see that all articles are properly tagged, that none are lost or stolen, that they are kept free from dirt and school-room dust, and that the place in which they are kept is sanitary and vermin proof.

(*e*) The display should be kept in the office of the supervising teacher.

In addition to the industrial articles, there should be kept on file specimens of prepared and unprepared industrial materials common to the locality and district. Information pertaining to these as to their appearance, preparation, peculiar characteristics, habitat, and abundance, together with possible photographs of the same should be on hand.

PROVINCIAL MUSEUMS.

Articles in provincial museums may be furnished by:

(*a*) Contributions and purchases from the various municipalities and supervising districts of the division.

(*b*) Outside purchases.

(*c*) Purchases at expositions and displays held by the Bureau of Education.

In provincial museums there should also be mounted specimens of materials found in the division, and the necessary data pertaining thereto. The General Office proposes to furnish each division with herbarium folders containing specimens of and materials from the chief Philippine fiber plants.

THE GENERAL MUSEUM OF THE BUREAU OF EDUCATION.

This museum will be supplied by articles purchased from provinces or elsewhere for use as models and ideas. Such articles will be purchased from the standpoint of utility, workmanship, design, shape, and local and export commercial possibilities.

In the purchase of all articles the utmost discretion should be exercised by teachers, industrial supervisors, and superintendents in order that only those articles may be procured and included in district and provincial museums which conform to the best standards and which can be advantageously fabricated from materials growing abundantly in the division. Fancy articles other than those in lace, crochet, and embroidery should not be selected. Only practical and sensible articles should be purchased.

It will be noticed that the purpose in view is to form a chain of institutions: The district museums to display local products; the provincial museums to show provincial products and models from outside sources; and the general museum to be composed of exhibits obtained from the different provincial museums and elsewhere.

The growth of these institutions should ultimately convert them into museums wherein all products, natural, agricultural, and manufactured, may be displayed. Such a collection of articles and information should be of immense aid, not only in teaching geography in the grades and in high schools but to the people of the community and to merchants, in indicating the resources of the locality and of the Islands as a whole.

The organization of the Bureau of Education permits of the founding and administration of such a chain of museums with a minimum of effort and expense. The beginnings are still small, but the possibilities of expansion are great and the practical note being struck should make them of great value in the material upbuilding of the Islands.

REVIEW OF REPORTS OF DIVISION INDUSTRIAL SUPERVISORS FOR THE SEMESTER ENDING OCTOBER 31, 1913.

By GLENN W. CAULKINS, Division Superintendent of Schools.

THE ever-increasing attention given to industrial education and the need for more systematic and more efficient supervision of industrial instruction made it advisable for the Bureau to assign to each of the larger divisions an industrial supervisor whose duties are to carry out, under the direction of the division superintendent of schools, and within limitations, the Bureau's policy and plans for the promotion of industrial instruction. Industrial supervisors have therefore been appointed in twenty-seven school divisions. Along with their other duties they are required to submit semestral reports containing a general survey of the industrial instruction in the schools of their respective divisions. A review of these reports for the semester ending October 31, 1913, is presented in the following pages.

SCHOOL AND HOME GARDENING.

Probably the most notable success in extending school work to the homes of the pupils has been attained in gardening. Gardening is carried on in practically all central and barrio schools and the requirement that all gardening pupils shall have home gardens is being rapidly carried out. The principal aim in teaching gardening in the public schools is to raise the standard of living by providing the means for securing more and better food. This aim can be realized only by a full compliance with the requirements. A study of the local markets and of the distribution and cost of food products raised locally has been taken up systematically in certain divisions. There has been a notable increase in the amount of time devoted to the raising of vegetables by extending garden work throughout the entire year; in some sections it has been impossible to continue the garden work the entire year due to destructive baguios, or to unusually dry or rainy seasons. To carry out this idea fully it is essential that a planting calendar be worked out showing the time for planting and harvesting each vegetable, and especially those adapted to the rainy and dry seasons. A plan for the rotation of crops will also be necessary. No doubt the garden bulletin, recently revised, will be instrumental in placing this feature of garden work upon a more satisfactory basis. The value of the crop harvested on each plot was recorded in certain divisions and by this means the amount of produce that should be raised on a standard plot or for a given area is determined. This may serve as a standard for the school or locality. Nurseries for the propagation and distribution of fruit, shade, and ornamental trees and shrubs have been established in a large number of schools. One division reports that 29,400 seedlings were raised during the semester. In one supervising district in another division over 20,000 seedlings were distributed, planted, and cared for.

IMPROVEMENT OF SCHOOL BUILDINGS AND GROUNDS.

A number of divisions have undertaken the improvement of school premises in a systematic manner. A permanent improvement plan is first worked out for each school site. On the plan are indicated the improvements already made and the suggested improvements, including buildings, fences, outhouses, walks, lawns, trees, shrubs, hedges, playgrounds, garden, nursery, etc. A copy of this plan, drawn to scale, is sent to the General Office for approval. The plan, either in its original form or modified, is then blueprinted and copies are furnished the division office for the teachers and officials concerned. No changes or modifications of the plan are made without the approval of the Director of Education. A large number of permanent fences with concrete posts and woven wire were built during the semester. This is the first step in carrying out a permanent improvement plan. Arbor Day has been instrumental in drawing attention to the need for more attractive school and home premises. Lawn making and the planting of shade and decorative trees are receiving more attention than ever before.

SHOPWORK.

The plan to place the supervision of municipal school shops in charge of the trade-school principals has brought about a higher standard of work in these shops. It is evident that there are too many idle shops. Many of these should be reopened as soon as conditions are favorable. The construction of hardwood furniture has been practically eliminated from municipal shops, and exercises; practical carpentry, and the construction of furniture for the home have been substituted. The course in bamboo and rattan furniture is not as widely introduced as is desirable. This work has been taken up in a number of schools with the idea of establishing it as a household industry. There is marked need for such a course in almost every town in the Philippines.

COOKING.

In a number of divisions cooking has been introduced in all schools giving the complete primary course. This has been made possible only by providing training for teachers at the normal institutes and by the provision of ample equipment and funds for carrying on the work. A number of cottages for teaching the housekeeping and household arts subjects were constructed during the semester. These cottages facilitate the work of teaching cooking, as they not only provide adequate room but make it possible to use the native stove and oven. The use of supplies that are available in the ordinary Filipino household is becoming general. The idea of providing instruction that may be applied at the pupils' homes should be kept constantly in view.

PLAIN SEWING AND GARMENT MAKING.

Bulletin No. 53 (Elementary Course in Sewing), issued during the past semester, was instrumental in extending and systematizing the work in sewing and garment making. This bulletin provides a progressive course in plain sewing leading up to the making of all garments usually made in the Filipino household, and it requires that many of these garments shall actually be made by pupils in grades three and four. This course was introduced into practically all central schools during the past semester.

HOME INDUSTRIES FOR WOMEN.

The industrial instruction provided for girls is of two classes with respect to the dominant aims of the instruction, (*a*) the work in housekeeping and household arts (sewing and garment making, cooking, and sanitation) which aims to improve living conditions by the direct application in the pupils' homes of the instruction received at school, and (*b*) the work in the household industries (embroidery, lace making, Irish crochet, and kindred subjects) which is designed indirectly to improve the standard of living by providing remunerative home work for girls and women after they leave school. There has been considerable discussion as to the relative merits of these two lines of industrial instruction for girls. This discussion has been largely academic; there is slight opportunity for conflict between them as they have few points of contact. Their immediate aims are different. Both are essentially vocational, and both have been dominated in too large a degree by the ideals of a liberal rather than a vocational education. The former is prescribed for the girls of all schools of primary and intermediate grades; the latter has been optional in the past but the present tendency is to prescribe a certain industry or industries for the schools of each locality. Both are essential and they should receive equal consideration in working out a properly balanced program.

The work in embroidery, bobbin lace, and Irish crochet has shown much improvement during the past semester, due largely to the use of approved designs and to specialization. More attention was given to the selection of suitable designs than in the past. Furthermore, it is only by specializing in one line that the degree of excellence in workmanship is reached that will enable the Philippine product to compete with the lace and embroidery of European centers.

BASKETRY.

Progress has been made especially in modifying utility baskets of various types and improving them. Conspicuous examples are the "Union" bamboo basket, the karagumoy baskets of Albay, and the Pampanga whorl-sawali basket. The baskets thus evolved can be produced on a commercial scale with less effort in training workers than is required for the production of baskets with which the people are unfamiliar. If the people are more or less familiar with the materials used, the methods of their preparation, and the weaves, it is relatively an easy matter to train a large number of workers. The fact that commercial baskets must be strongly made so that they may withstand rough treatment in shipping has tended to eliminate many of the more flimsy baskets. It is also essential that baskets should either nest or telescope, especially the larger ones. Considerable attention has also been given to the time element in basketry; it should be more generally understood that it is unprofitable to use two pesos' worth of time in making a one-peso basket. Many baskets are still made with too fine weavers; this often increases the cost of production without adding to the value of the baskets and often weakens them.

ABACA WORK.

Work with abaca is becoming more general as the variety of uses to which it can be put are becoming more generally known. Some of the articles which are found to be profitable and adapted for school work are slippers, coiled baskets, trays of abaca fiber and lupis, and articles of macramé. Some very good cushion covers and handbags of pinolpog embroidered with colored abaca fibers have been made. The dyes especially prepared for abaca fibers have been used with excellent success. The coiled baskets made after designs furnished by the General Office are superior to any baskets of this type which have been produced heretofore. Abaca slipper-making as a home industry has become established in at least two provinces, and has proved to be a profitable undertaking.

SUPPLIES AND EQUIPMENT.

The problem of securing and handling supplies and equipment used in industrial classes has been solved in the majority of divisions. In a number of divisions, however, it is apparent that this important matter has not been given the attention it requires. In some provinces the provincial treasurer places a large order for material for the schools of the entire division, sufficient for at least one semester. This is distributed to the towns and paid for as soon as it is received. These orders are placed long enough before the supplies are actually required that there may be no delay in the work due to lack of material. Whether the supplies are ordered for each municipality or district separately or for the division as a whole it is important that this matter be attended to several months in advance of the time when the supplies are to be used. Bulletin No. 49, Industrial Fiber Plants of the Philippines, gives a comprehensive list of plants furnishing materials for baskets, mats, and similar articles, together with the methods of preparing them for use. The information contained in this bulletin should be of assistance to industrial teachers and supervisors in the matter of securing and preparing material for industrial classes.

DESIGN.

The attention given to the question of design by the General Office has been the means of raising the standard of work produced in the schools, especially in embroidery, basketry, and cabinetwork. The fact that practically all articles produced in the industrial classes must be made after designs approved either by the division office or the General Office has eliminated the greater part of the unsatisfactory designs used in the past.

The museum feature of the industrial instruction is being used more extensively each year. The General Office museum is extending its influence by means of traveling exhibits of designs, patterns, and models. Smaller exhibits have been established in many provinces and towns. Well-constructed models with good designs are invaluable in securing the best results in industrial instruction. This feature of the work should be extended.

On the whole the reports of the industrial supervisors indicate that progress is being made in all lines of industrial instruction and that these lines are being adjusted to provide for the actual life needs of the pupils. The handwork of the lower grades is designed to lead the pupils to discover a capacity which may influence them in deciding upon a vocation. A basis is thus laid for a simple vocational guidance plan reaching down into the primary grades. Industrial education makes intelligent consumers as well as intelligent producers; this is brought out in the emphasis laid upon lines of work having a direct bearing upon the home life of the pupils.

Rattan chairs, largely shown at the Centennial Exposition in Philadelphia in 1876, attracted a great deal of attention and may have been a valuable suggestion since followed out by foreign furniture manufacturers. They had been made in the United States for some years previous, but the advertising thus given this class of goods brought them into greater favor. At that time the tendency to very elaborate patterns was marked and some of the earlier styles would excite amusement now, when modes and ideas of good taste have changed so materially, and become much simplified. The fans, palm leaves, hearts, and other curlycues then popular, are now out of date. There seemed to be a belief that the more curves the rattan could be distorted into the better would be the possible demand. Cane generally was used for the seats and backs of such monstrosities of "decorative" art. The tendency now is to conform to accepted decorative designs such as have been handed down from the classic periods. (A. W. A.)

o o o

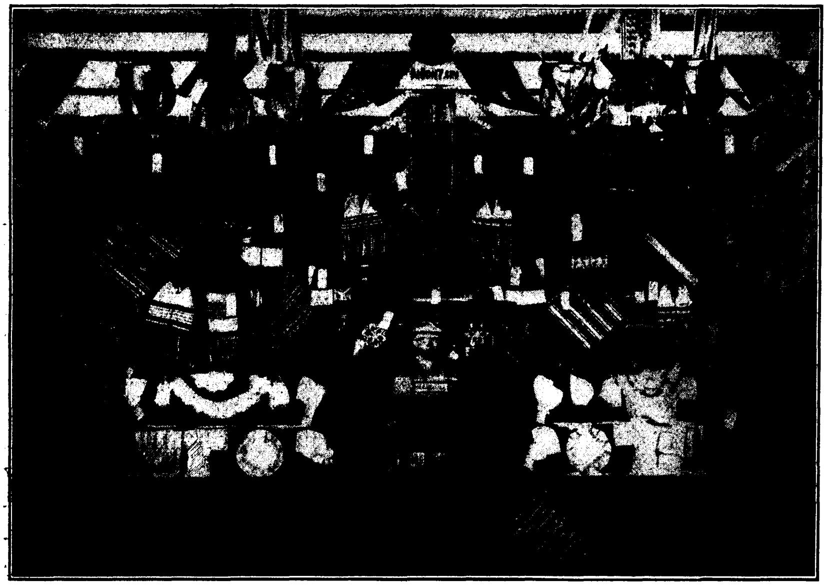
Vacant lot gardens in our large cities represent a form of practical philanthropy that is attracting favorable attention throughout the country. In Philadelphia, according to the last annual report of the Philadelphia Vacant Lots Cultivation Association, the land is lent free of charge by the owners. The association spends about $5 a garden for plowing, fertilizer, seeds, etc. Each garden is assigned to a family, which pays $1 the first season, $2 the second, and so on, until the fifth season, when about the full cost is collected. In 1912, 442 families were assigned gardens, averaging about one-sixth of an acre. The families spread the fertilizer, and plant, cultivate and harvest the crops, supplying their own tables and selling any surplus. (Scientific American.)

NOTES ON THE 1914 INDUSTRIAL AND SALES EXHIBITION OF THE BUREAU OF EDUCATION.[1]

A FEW SALIENT EXHIBITS FROM DIFFERENT SCHOOL DIVISIONS.

OWING to the fact that the building containing the Bureau of Education's exhibit was larger than those used in previous years and the further fact that the corn exhibit and the corn demonstration were housed in a separate building, more space for the booths was available than at previous exhibits.

A change in the manner of arranging the booths allowed nearly all of the furniture from each division to be displayed in a space directly in front of the booths containing the general exhibit from the same division. This fact made the whole exhibit more attractive and allowed the public to judge better the entire display from each division.



The unique exhibit of the peoples of Mountain Province.

The exhibits from Cagayan, Isabela, and Nueva Vizcaya contained some excellent coiled baskets made of rattan. The Mountain Province exhibited articles typical of the handwork of the mountain people. Ilocos Norte and Ilocos Sur had a large number of shamrock baskets and articles made of woven rice straw. Some carved wooden boxes and rattan stools formed a part of the exhibit from Ilocos Sur.

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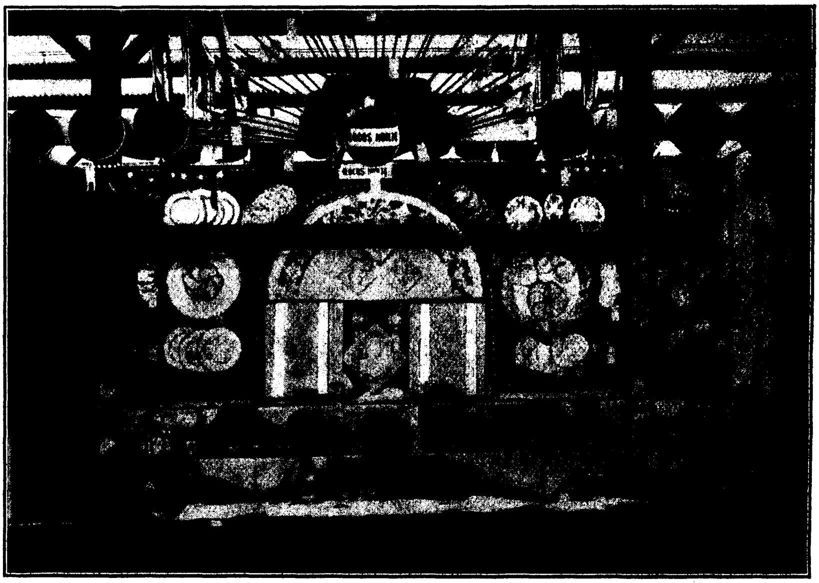
[1] These notes were prepared by Hugo H. Miller, Leroy R. Sawyer, Glenn W. Caulkins, Olaf Hansen, R. B. Robinson, R. R. Sage, Mrs. Alice M. Fuller, N. H. Foreman, Frank W. Cheney, and Miss Elizabeth G. Hofflin. Each writer covered that part of the exhibition in which he was particularly interested.

Needlework formed the major portion of the exhibits from Union, Nueva Ecija, and Pangasinan. Some of the lace from Nueva Ecija and nearly all of the embroidery made in Pangasinan was very well made. Union displayed a number of small carved wooden articles. Pampanga specialized in lace and bamboo baskets and had a very attractive exhibit. Zambales exhibited a large number of Zambales baskets. The embroidery work from this division was sold at very reasonable prices.

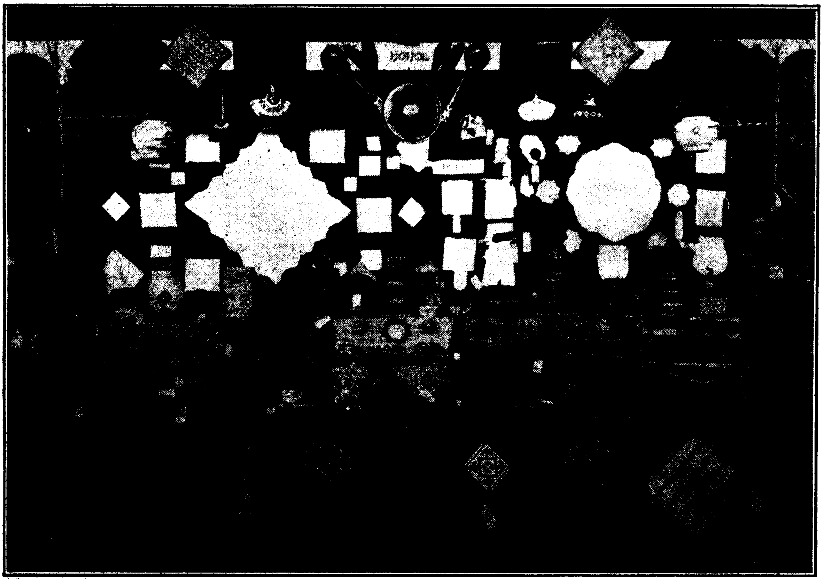


Ilocos Norte booth.

Gerona baskets, Camiling dolls, and some excellent embroidery were features of the exhibit from Tarlac. Bamboo hats, nito, bamboo, and rattan baskets were the principal articles displayed by the division of Bulacan. Sabutan hats, filet crochet, and leather-soled chinelas were included in the Rizal exhibit. Cavite had a large number of embroidered flannel articles and some carved bamboo. The Laguna exhibit contained hats, kilog baskets and belts, and a large number of polished coconut shells.

The exhibits from both Surigao and Misamis contained a large amount of needlework and some macramé articles. Sorsogon, Albay, and Ambos Camarines each had a large number of baskets, crochet articles, and some embroidery. Sorsogon had a large amount of crocheted edging and insertion. Albay sent many baskets and mats made of karagumoy in addition to a large display of Irish crochet. Ambos Camarines had a novelty in the form of an abaca hat. A number of attractive cushions made of pinolpog were included in the exhibit.

Hats, baskets, slippers, embroidery, tatting, and crochet were the principal features of the Tayabas exhibit. Batangas had a very large exhibit consisting principally of Irish crochet and bobbin lace. Mindoro had a small exhibit consisting of baskets, samples of plain sewing, and some embroidery work.

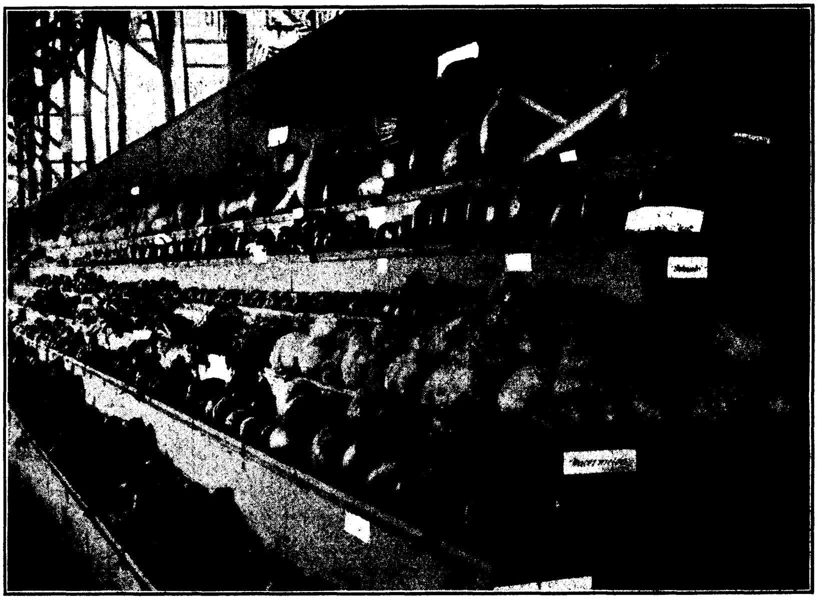


Bohol booth.

Tikug mats and slippers, coiled and Polangui baskets, sinamay cushions and polished coconut shells were the prominent features of the Samar exhibit. Bohol exhibited buri raffia cloth and cushions, coiled baskets, and tikug mats. Cebu had a fine exhibit of Polangui and coiled baskets.

Oriental Negros and Occidental Negros displayed woven buri raffia, Polangui and coiled basketry, and coir mats. One of the largest exhibits came from Iloilo. Pinolpog cushions, articles made of buri, braided-abaca hats and basketry formed a large part of the exhibit. There were also a number of chandeliers made of shells. Abaca work consisting of slippers, baby shoes, mats, cushions, and bags formed a part of the exhibit from Capiz. Some baqui-baqui satchels, Polangui and buri baskets were also included. Stools, shell novelties, buri hats, and baskets were exhibited by the division of Antique. Tagbanua baskets and some excellent embroidery work were the notable features of the exhibit from Palawan.

In addition to these exhibits the schools of the city of Manila, the Philippine School of Arts and Trades, the Philippine Normal School, and the School of Household Industries each had an excellent display indicative of the work done by each.

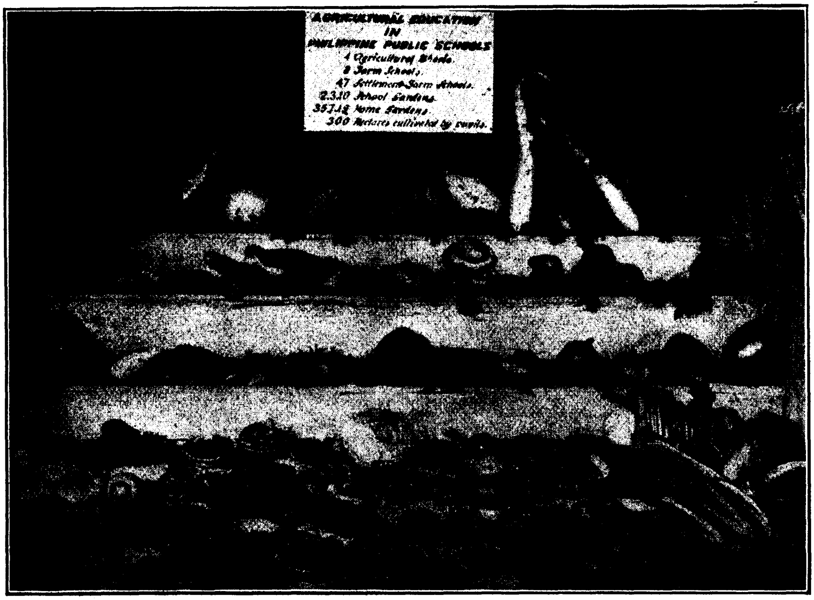


Products from the school and home gardens of public school pupils.

One of the most popular features of the exhibit was the booth wherein the pupils enrolled in the domestic science classes of the intermediate schools of Manila sold light refreshments during the exposition. The pupils assigned to these classes wore attractive uniforms and daily served sandwiches, cakes, doughnuts, coffee, ices or ice cream, and lemonade.

THE AGRICULTURAL SECTION.

The agricultural features of the industrial instruction offered in the Philippine public schools, beginning with gardening in the lower grades and continuing as farming, home projects, and food campaigns were given a prominent place in the exhibition. An entire section of the educational building comprising 2,750 square feet of floor space was devoted to a comprehensive display of products from the school gardens and school farms, consisting of native vegetables and those recently imported. The most noticeable features were the excellent quality of all products and the number of legumes and native roots. The exhibit, however, indicated only in a meager way the work which is being done in the 2,310 school gardens and the 35,719 home gardens throughout the Philippines, as the nature of the exhibit made the securing of choice products difficult.



A wide variety of excellent products.

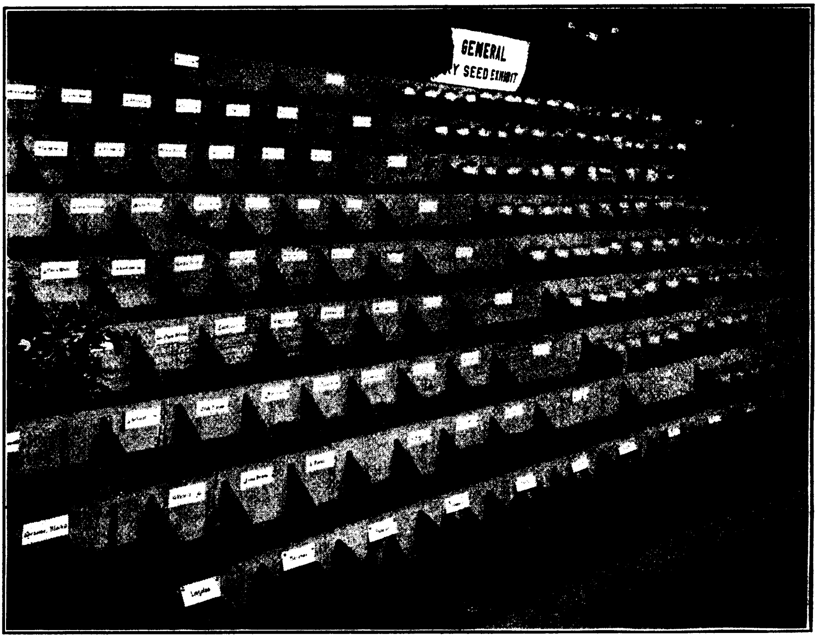
The following weights of various vegetables show that they compared favorably in size and quality with those grown in other countries:

	Kilos.
Pumpkin	10.2
Gourd, wax	7.6
Gourd (upo)	9.9
Gabi	2.05
Eggplant	2.5
Cabbage	2.2
Sincamas	3.05
Cucumber	1.05
Tomato	.55
Ubi	6.85
Pechay	1.05

The exhibit showed an improvement of 20 per cent over the one placed last year. In this connection it may be stated that this improvement is the direct result of the rapid extension of gardening into the homes as supervised home gardens of school pupils.

The following divisions won the Exposition prizes for the best vegetable exhibits:

Gold medal	Batangas.
Bronze medal	Union.
Honorable mention	Pampanga.



The first comprehensive display of seeds ever placed in the Philippines.

GENERAL DRY SEED EXHIBIT.

The Bureau of Education has planned each year to make a comprehensive display of some one agricultural feature. Last year this end was accomplished by an exhibit of Philippine fruits; this year dry seeds were given emphasis and a rack containing 318 kinds of dry seeds formed one of the most instructive features. These seeds came from all provinces of the Philippines and evidenced the fact that a large number of legumes are now grown in the Philippines. Among the seeds on display were a considerable quantity of "bugayon" seeds. While this seed has but little economic value other than its use as a native remedy for certain ills, it has held an interesting place in history for centuries. Both Chinese and East Indian merchants used it as a standard of weight for buying and selling gold and precious stones long before specified weights and measures were in common use. From this exhibit seeds were secured for the industrial museum of the Bureau of Education. This collection will be added to from time to time as it will be the means whereby students of economics will be able to study the various food resources of the Philippines. Prizes were offered by the Exposition board to the school divisions submitting the most complete collection of seeds. The following winners were determined:

Winner of gold medal for farm schools.

Gold medal	Tarlac.
Bronze medal	Ilocos Sur.
Honorable mention	Occidental Negros.

NURSERY EXHIBIT.

The encouragement of nurseries for the securing of desirable seedlings of native fruits and other plants for distribution, is an important feature of the agricultural work of the Philippine public schools. This work was represented by an exhibit from the Tanauan Intermediate School. Seedlings, cuttings, and a few budded orange trees were shown.

SPECIAL BOOTHS.

One-half of the entire agricultural space was given over to a series of booths for the display of agricultural products from special schools, consisting of the following: Central Luzon Agricultural School, Agusan schools, Batangas Farm School, Indang Farm School, Batac Farm School, Tacloban Farm School, Iba Farm School, San Carlos Farm School, Guinobatan Farm School, Manila schools, and Philippine Normal School. Very creditable displays of products were shown by each of the schools. The exhibits of the schools which had special booths last year showed an improvement of 30 per cent in the variety and the quality of the products. Corn, native roots, legumes, and forage were given merited prominence by many of them. The vegetables and corn in the booths of the Manila schools and the Philippine Normal School, the most excellent peppers and cabbages in the Batac Farm School booth, the corn breeding of the Indang Farm School booth, the legumes and roots of the Batangas Farm School booth, and the roots, legumes, and coffee of the Agusan schools attracted particular attention.

The Agusan booth—winner gold medal for special agricultural schools.

The winners of prizes for the best farm school exhibit were:

Gold medal	Batangas Farm School.
Bronze medal	Indang Farm School.
Honorable mention	Batac Farm School.

The prizes to be given to certain special schools for the best exhibits were awarded as follows:

Gold medal	Agusan schools.
Bronze medal	Central Luzon Agricultural School.
Honorable mention	Tanauan Intermediate School.

CORN CAMPAIGN WORK.

All corn campaign features were given special emphasis this year. A separate building was erected and devoted entirely to a working exhibit of the various details of the corn campaign. In this building was also shown the final exhibit for Corn-growing Contest No. 2 of the 1913 Corn Campaign. Corn was displayed from every province in the Philippines with the exception of Isabela. The corn exhibit was one of the leading attractions and was the object of favorable comment of the many people who were interested in the efforts of the Bureau of Education to promote the production and use of corn. The corn on display showed an improvement of 60 per cent over that exhibited last year. The individual exhibits were judged by Mr. H. T. Edwards, Assistant Director of Agriculture; Hon. Melecio Severino, chairman, Agricultural Committee, Philippine Assembly, and Mr. J. F. Boomer, formerly editor of the Cablenews-American. The final scoring of the corn was very close and only a small difference in rating existed between the winners designated below:

First	Pedro Cariño, Tubao, Union.
Second	Luis Platon, Tanauan, Batangas.
Third	Conrado Mendoza, Balanga, Bataan.

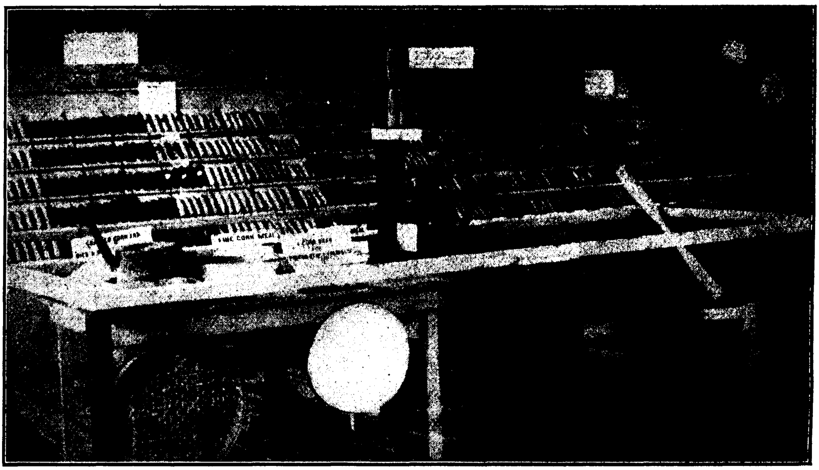
Prizes were also awarded by the Exposition board to the school submitting the best five ears of corn. The following intermediate schools were declared winners:

Gold medal	Tubao, Union.
Bronze medal	Tanauan, Batangas.
Honorable mention	Balanga, Bataan.

Vicente Meria, Asingan, Pangasinan, and Catalino Alger, Calamba, Laguna, the champion corn growers of the 1912 Corn Campaign assisted with the exhibit. One gentleman was much interested in the corn and offered to buy the 200 best ears at ₱1 each. Another gentleman stated that he wished to secure native flint corn for seed purposes, and wished to buy at ₱2 an ear the entire exhibit of yellow flint corn which came from Pangasinan Province. Numerous requests were received for seed corn. Such requests show the strong desire for good acclimated seed corn which at present is very scarce in the Philippines.

DEMONSTRATION WORK.

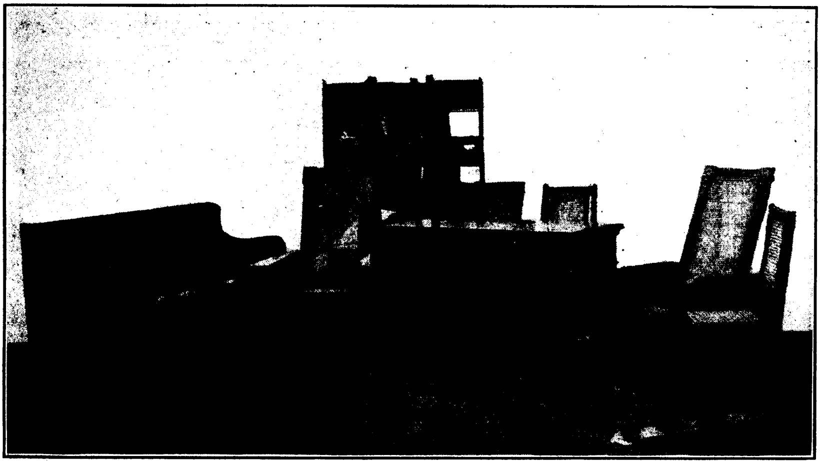
This consisted of a series of booths to show the various features of the corn work. A food demonstration was conducted by 18 girls from the Philippine Normal School under the supervision of 2 Filipino women teachers of that institution. Corn foods were prepared and 20,000 people were served during the Exposition. This practical demonstration of the proper preparation of corn foods along with the distribution of corn recipes formed a very important part of the corn campaign work both at the Exposition and throughout the provinces. Other booths in the corn building were in charge of Filipino teachers specially trained as demonstrators. A booth showing the storage of corn by the various methods common in the Philippines was in evidence. A demonstration of the use of the plant called "lagundi" for use in this connection was featured. The use of corn implements, such as corn mills, shellers, and planters was shown in a separate section. The people were much interested in the demonstration of the preparation of meal by common methods and by modern hand corn mills. The various points of seed selection and seed testing as well as a display of corn products were explained in a very practical and instructive manner.



Final corn exhibit and demonstration of preparation of corn meal.

WOODEN FURNITURE.

This year, for the first time since the inauguration of woodworking in the public schools of the Philippine Islands, a systematic effort was made to standardize designs and regulate the selection of articles to be shown at the annual exhibition. The value of this effort was very apparent to those who have given the matter any study in the past. The 1914 exhibit of furniture, while lacking in volume, averaged far higher than that of any of the previous ones. The day of freak furniture has passed and every industrial man has come to realize that staple articles of standard design and construction are the only sure sellers.

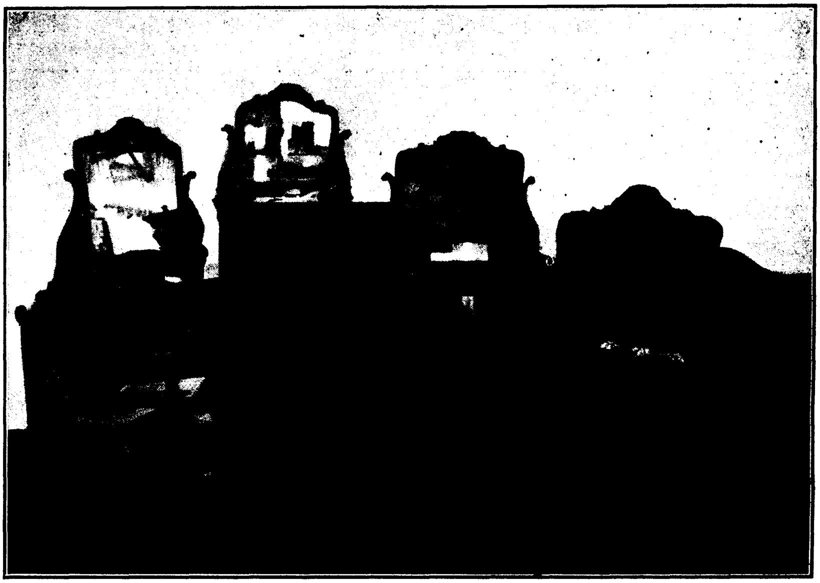


Furniture made in intermediate schools, Manila.

After the exhibit was placed in the building various specialists made a careful examination of every large article of furniture. and percentages were compiled based on the following headings: Design, selection of material, construction, workmanship, utility, and finish. Of the thirty-three provinces exclusive of Manila, twenty-five maintained an average of 86 per cent. Of the remaining eight, four did not exhibit furniture, two came in too late to be considered, and two did not have a large enough exhibit to qualify.

In a majority of cases the points criticized were of a nature that would escape the notice of the layman and when one stops to consider the difficulty of making perfect furniture under the prevailing conditions in most of our schools, this percentage is very good. There still remain a good many loose ends to be picked up and the fact will always confront us that we are doing this work with students, a fact that makes the task of setting a high standard and living up to it an endless one.

Designs were far better than in previous years. With a few exceptions, every design was submitted to the General Office long enough in advance so that errors could be corrected or better designs substituted. Barring a few mistakes in interpreting drawings, the results left very little to criticize. Standard heights, which caused so much unfavorable comment in previous exhibits, were followed throughout with but two exceptions. The difficulty of foreseeing just how a design will look the first time it is actually worked out in wood has been apparent and a few of the accepted designs will be discontinued. As a whole, the designs this year were excellent.



Bedroom set, Batangas.

Selection of material was satisfactory in most cases, but a few of our trade-school men have yet to learn that it is better not to make a thing at all than to make it out of defective or poorly matched material. Selection of hardware also comes under this heading. There were several instances where the whole effect of a well-made, high class piece of furniture, was injured by the use of cheap brass handles or fixtures.

Construction was the point most criticized. The furniture maker in the Philippines has a very difficult task in turning out professional work as he cannot depend wholly upon glue and is therefore deprived of a most valuable asset. The problem of fastening a piece of furniture together solidly with screws or nails, at the same time keeping them out of sight, has not been fully solved in some of our schools, but still a great improvement along this line was noticeable. Where glue alone had been used, the inevitable happened and several of the best looking articles could not be sold for this reason.

Workmanship this year was better than ever before and very little comment need be made. Several of the intermediate schools however, were too ambitious and attempted more than they could accomplish. There were, fortunately, only a few such instances and, in the main, the intermediate shops made an excellent showing. The question of equipment, capability of teacher, and length of time such shops have been established should be taken into consideration in deciding whether or not an exhibit of furniture work should be attempted. In many cases the intermediate shops rank no higher in actual practice than the primary shops and should be treated as such.

Office set, Philippine School of Arts and Trades.

Utility is a rather difficult term to define. It is closely connected with good design and one cannot well exist without the other. So often articles considered defective in this respect have been singled out from among all others and purchased, that one hardly feels safe in making a positive statement. There are several points, however, that may be safely agreed upon: Doors and drawers must work freely and fit well; all locks on the same piece should open to the same key; standard heights must be adhered to; and every thing movable should perform its proper function.

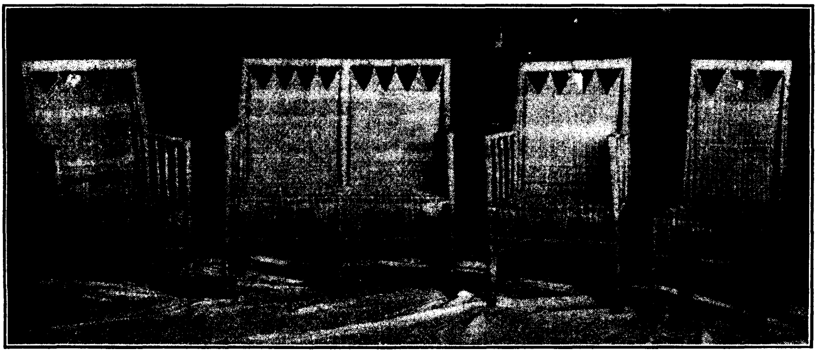
Finish was universally good. The only criticism made was in the selection of finish. The use for which an article is intended and the kind of wood from which it is made should be the deciding factors. Five years ago one could have gone through our exhibits and numbered the well-finished articles on the fingers of one hand. This year poorly finished articles were the exception rather than the rule. The result can be traced directly to the systematic training that has been given in this work in recent years.

The question is sometimes asked as to whether it was not a mistake to train our boys wholly in the making of wooden furniture of American design and for an American market. This is easily answered. They are being trained primarily to be good workmen, to make good joints, to follow instructions, and to make honest furniture. The question of design is secondary. The leading question is to supply the demand. At present the demand is for the kind that is being produced. When the demand changes the designs will change, but our workmen will have lost none of their skill.

BAMBOO AND RATTAN FURNITURE.

Once again it has been demonstrated to what extent a relatively new line of industrial work can be encouraged and developed in a short space of time when concerted action on the part of school officials and pupils is brought to bear. Until the present school year slight attention had been paid to the making of furniture from the above materials, as two types of plain bamboo and rattan chairs from the Isabela schools, the wrapped lupis furniture from Cavite, a rattan composite chair from Camarines, and the plain bamboo furniture with a few wrapped parts from Pangasinan, largely constituted the output in this line of work in the public schools. At the exhibition this year 17 provinces were represented, a few of them having sets of furniture for either the sala or dining room which would do credit to skilled adult workers in these materials. The range of work covered not only full-sized articles but those for children as well, with a variation in the material employed from the plain bamboo and rattan to the more ornamental pieces decorated with wrapped coverings of lukmoy, nito, and rattan.

From Pangasinan came one of the best constructed sets in the entire exhibit, consisting of a settee, rockers, reception chairs, and easy chairs built according to standard models. All the material employed was rattan. The most characteristic piece from Laguna was a bassinet of fine workmanship, made of rattan with a lukmoy and nito wrapping. A stand sewing basket made of the same materials was also noticeable for its general excellence. Camarines had a variety of all-rattan chairs from the reclining to the dining chair. This province has made conspicuous progress in this line of work. The display of easy chairs and tables from Oriental Negros was a striking feature of this furniture exhibit. There were sets of chairs and tables for children as well as for adults. The Samar all-rattan chairs excelled as to workmanship and finish, the type in which the rounds in the back were wrapped and decorated with nito being one of the most attractive pieces seen in the entire display. A distinctive feature of the Samar articles was the superior manner in which the materials had been prepared.



Bamboo and rattan furniture.

Pieces from Batangas consisted in the main of a framework of bamboo, simulating the burnt effect of Japanese bamboo, with a lupis twist for covering. These ranged from a dining table and chairs with triangular seats to ordinary chairs and those with arm-rests, rockers, high chairs, baby chairs, and the vis-à-vis. This type of furniture can be developed considerably and undoubtedly has a future, provided more attention is given to the matter of construction and bracing. As it was, the pieces were among the most unique of any shown. Isabela exhibited samples of the all-bamboo chair which is still a paragon in its line. It is not only artistic in appearance but well finished in every particular. The all-rattan chair from this province also merits special mention.

Other provinces represented were: Palawan, two samples of rattan chairs; Occidental Negros, a perezosa and rocking chair; Bataan, rattan tables with woven tops and wrapped legs, and all-rattan chairs; Zambales, a bamboo table with a nito and blackened bamboo top, rocking chairs, flower stand, and hat-racks; Albay, a small well-made table with bamboo pedestal and ornamental woven top; and Cavite, some large all-bamboo chairs, also children's size of the same type. Bulacan was represented by two reading chairs, one of which was exceptionally good in design and workmanship; Tayabas, by two tables of artistic lines and which with more attention to certain features of construction might become standard in their kind; and Iloilo, by a variety of pieces consisting of the fan chair, tables, washstands, hat trees, and stools.

The extent to which the Bureau of Education is accomplishing the task which it has set for itself in this line of work was to be gathered in some degree by examining the different articles displayed. Proof is not wanting that inexpensive but suitable furnishings are being more widely introduced into Filipino homes, and that pupils are obtaining more generally the necessary experience and training in the use of tools, which the more expensive equipments for woodworking have hitherto restricted.

PLAIN SEWING.

The plain sewing exhibited at the Second Philippine Exposition was better than that shown in previous years. Nearly every province had more or less of an exhibit though but few of the provinces entered pieces enough to allow them to compete for the prizes offered.

The number of articles required for an exhibit in plain sewing was eleven pieces. The exhibit of many provinces contained that number of pieces, but several provinces failed to tag the work in such a way as to be eligible for prizes.

Most of the articles exhibited were children's clothes of one sort or another. There were many simple romper suits, one-piece dresses, and pieces of children's underwear. Besides these everyday garments there were several dainty bonnets and the most pretentious of lingerie dresses. There were some half dozen dresses made after French patterns, of fine linen or pearline, trimmed with Irish crochet or pillow lace, and with intricate insets and insertions or with dainty tucks, ruffles, or hemstitching; dresses that required many weeks of patient school work; dresses in which every stitch was most carefully placed. Indeed, the work on some of the garments exhibited seemed as well done as it is possible to do such work.

The exhibit of general plain sewing included sheets and pillowcases, mosquito nets, towels, and tablecloths, as well as articles of everyday wearing apparel. This exhibit included both machine and hand work. Many provinces showed good hand work and careful machine work. There was considerable evidence of a sound scientific basis back of it all. Many examples of good selections as to material and style as well as of sewing were to be seen.

The principal adverse criticism which the sewing exhibit called forth was the reluctance with which the different provinces entered into competition in the making of such garments and household articles as are used daily in the home.

Plain sewing is required in the public school course from the first through the sixth grade. Beyond the second grade the work takes the form of practical garment making. The prime object of the entire course is to teach girls to make and to mend the garments which are necessary to clothe a Filipino family comfortably and becomingly. Another year it is hoped that the general plain sewing exhibit will mean selections made from the daily work done in the classroom and that nobody will hesitate to send well-made, plain, everyday garments. A general plain sewing exhibit should not confine itself to a few exquisitely made garments. The intelligent and efficient development of a class is far more important than the attainment of a few pieces of exquisite needlework. The ability to make quickly and well the needed household garments and to give these garments style and finish is the aim of the plain sewing course and the prize offered for general plain sewing was intended to further this end.

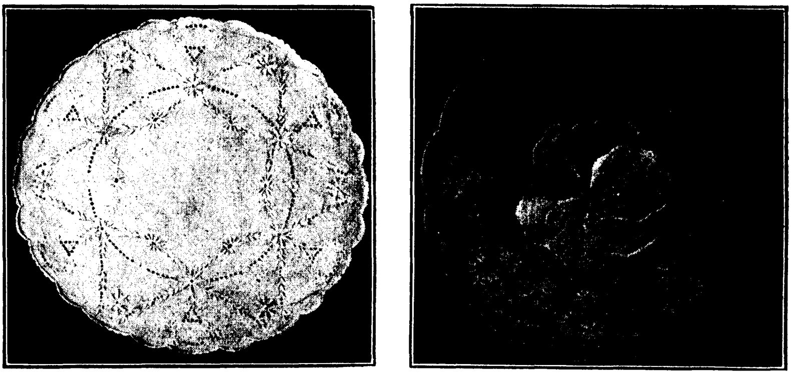
LACE AND EMBROIDERY.

The exhibit of needlework was not only the largest collection of the kind ever assembled from the schools of the Philippines but the amount of work that might be classed as standard in quality was greater than any previously exhibited.

The results of the efforts made to standardize the various branches of needlework during the past year were quite gratifying as, taking the exhibit as a whole, better designs were used; the placing of the designs in a proper manner received more intelligent attention; better materials were employed; the technic was considerably improved; and some progress was made toward standardizing prices.

Bearing in mind that all the work was done by the pupils of the schools, it is not surprising that imperfections were found in some of the work. It is to be regretted, however, that most of the imperfections were the results of the lack of knowledge or of supervision on the part of the teachers rather than mistakes made by the pupils doing the actual work.

Many of the mistakes in dimensions, in the use of proper stitches in developing designs, in the use of poor or entirely wrong materials, and in the failure to detect and correct mistakes might have been avoided had the information heretofore published in THE PHILIPPINE CRAFTSMAN been properly disseminated among the teachers at regular teachers' meetings.



Lace and embroidery.

The continued popularity of Irish crochet was surprising. Considerable improvement has been made in Irish crochet, yet with the exception of but a very few divisions the work was not well enough made to be considered standard. Filet crochet was offered in increasing quantities and was quite popular when used in connection with articles for household use. This work was purchased by both the native and foreign buying public.

The lace exhibited was better than any ever before exhibited by the schools, yet, if lace is to be made a profitable industry either in the schools or in the homes of the people, the technic must be greatly improved and there must be a concentration of designs. It will also be necessary to secure a wider selection of better thread at prices much less than are now asked by the retail merchants. As a general rule, the prices asked for lace were more than is asked for lace of a similar quality made in China and offered for sale in the Philippines.

The embroidery work showed the greatest improvement both in design and in the quality of the finished work. Much of the work was excellent and sold well when applied to standard articles which do not depend upon the dictates of fashion for popularity. Table linen, guest towels, baby dresses and caps, table runners, handkerchiefs, night-gowns, and similar articles were in demand. Shirt waists were not popular owing to the fact that the designs were not in accordance with the present styles. In the exhibit of the schools of the city of Manila were two excellent examples of Hardanger embroidery; some few schools exhibited embroidered piña; and from a number of schools embroidered bags and cushions of buri or abaca were sent.

As a whole the needlework display was quite instructive as it proved that where proper supervision was given excellent results were obtained. It showed that supervisors and teachers should give more attention to the published suggestions contained in THE PHILIPPINE CRAFTSMAN and trade publications. It demonstrated the need of a wider selection of materials at cheaper prices and that more attention must be given to the retail prices asked.

PRESERVED FRUITS.

The exhibit of preserved fruits and jellies showed a decided improvement over the exhibits of a like nature displayed during the annual exhibitions of previous years. The number of schools represented in the exhibit was larger than ever before; in general both the receptacles and their contents were more attractive in appearance and a much larger variety of fruits was exhibited.

The division of Pampanga led in the number of units exhibited with a total of 197. This exhibit not only arrived in excellent condition but it made a very neat display owing to the fact that the fruits were contained in jars of uniform size. The exhibit from the division of Laguna was considered best from the standpoint of the appearance of the preserved fruit. The division of Leyte was considered best as to quality. The divisions of Sorsogon, Cavite, and Bulacan were given favorable mention by the committee judging the exhibit.

Among the exhibits were the following: Papaya jam, papaya jelly, "chow-chow" papaya, sweet pickled papaya, guava jelly, spiced grapes, grape jelly, preserved nipa fruit, spiced mangoes, sugared chicos, pineapple jam, preserved mangoes, preserved lanzones, preserved balimbing, preserved pomelo, pepper pickles, Philippine olives (paho), preserved breadfruit, banana jam, preserved condol, spiced santol, preserved tubo, roselle jelly, tomato preserves, tamarind and coconut jam, pickled coconuts, corn relish, pineapple honey, preserved pineapple, camote preserves, preserved lemon, chico butter, and orange marmalade.

SLIPPERS.

During the past year marked improvement has been made in all types of slippers and it is quite evident that endeavors have been made toward commercializing them. In fact, abaca slippers have reached such a degree of perfection that it is believed by the writer that little attention should be given toward improving them further. The grass and sedge slippers, although better than those of previous years, still have room for improvement.

Types of all-abaca slippers.

The all-abaca slippers (Bulacan type) are not as neat and stylish in shape as those from other divisions, yet they are durable and serviceable and have for several years been sold in the Manila market. These slippers are inexpensive and may be made at such a figure as to make them desirable commercial articles.

Abaca slippers with leather soles are now quite common; the sandal type with toe strap is sensible and practical. However, both must be reduced considerably in price.

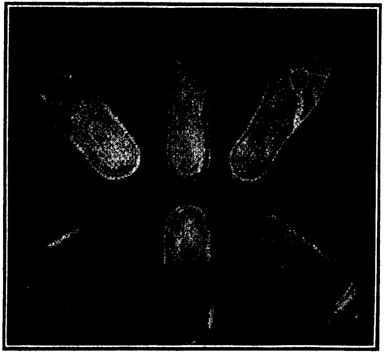
The less expensive slippers made from grasses and sedges and like materials were quite noticeable. The bast slipper of Cagayan, the balangot of Pangasinan, Pampanga, and Batangas, the rice-straw slipper from Pangasinan, and the buri-raffia cloth slipper of Capiz are all excellent ideas. If properly developed, profitable industries can be established in these types which will not only have a large local consumption, but foreign consumption as well.

In abaca slippers attention should be given to the tops, the weight of the lower sole, and the coloring matter. Macramé tops increase the cost of slippers considerably, are harsh to the touch, and from a commercial standpoint could well be eliminated. In their stead, toe straps of braided abaca strands, or Tagal braid, could be substituted with just as pleasing effect. Abaca cloth could also be used in this connection.

In sedge slippers foreign materials, such as cotton cloth and plush, should not be employed as they are out of place and not in harmony with the rest of the materials from which the slipper is fabricated. Toe straps of sedge material or of abaca cloth should be utilized.

In general both types of slipper should be made of coarser materials, much of the overcrowded decoration should be eliminated, but at the same time the high standard of workmanship so noticeable throughout the whole exhibition should be retained.

The prices of many slippers were such as to hinder their being sold in large quantities, either wholesale or retail. During the coming year attention should be given to keeping the cost of each and every slipper made to the normal.



Types of abaca slippers and sandals.

MATS AND MATTING.

Some remarkable articles made from matting materials were exhibited this year. The uses to which buri raffia, tikug, and balangot have been put are numerous and have thoroughly demonstrated the fact that large fields are open for the development of this particular line of work.

The heavy floor mats of buri raffia from the Province of Iloilo, the heavy raffia sleeping mats (petate) from Occidental Negros, raffia cloth and matting from Bohol, and the tikug mats from Samar, together with numerous trinket and cigarette cases exhibited by different divisions, are those which deserve particular mention.

Each year thousands of pesos worth of mats and cushions of all descriptions are imported into the Philippines by Japanese, Chinese, and Indian merchants. Materials for the making of such articles are available in every province of the Philippines, and it appears that a practical industry could well be developed in this line. At least more attention should be given this work than has been given it in the past.

It is realized that it is rather a difficult proposition to establish such an industry with the class of looms now in use throughout the Islands. Regardless of this, it is urged that endeavor be made to fabricate more of such articles on the ordinary native loom until the proper loom is worked out and is in the field for demonstration purposes and for use.

A noticeable feature, pertinent to this line of work, was that the price of many articles was too high to permit them to be considered either as export products or as products for home consumption.

The work in color and designs has improved considerably, and should be given continued attention during the coming year. In fabricating commercial articles intricate designs should not be attempted. Simple designs as a rule will be found commercial sellers, and keep down the cost of production. It is essential that prices be reduced to make these articles more desirable commercial products.

HATS.

The richness of the Philippines in hat materials is emphazised from exposition to exposition by the new types of hats which constantly appear. Some of these hats are never again seen but a few take hold both of the fancy of the buying public and particularly of the fancy of teachers and weavers, and appear in increasing numbers in each succeeding display.

Several new ideas in hats were shown this year. The most popular one, and a hat the commercial possibilities of which have already been proven for domestic commerce, was the seguran hat of Capiz which is made of buri raffia. The shape would seem to suit it for use as an outing or a boy's hat in the United States, and its appearance also fits it for this purpose.

Buntal braid has been noted many times but the first hat to appear was shown this year in the Tarlac booth. The type was entirely too heavy for a woman's hat but it indicated what can be done with buntal plaits.

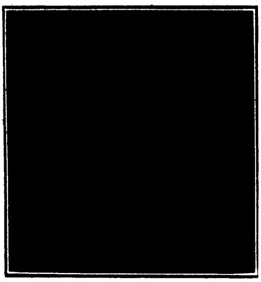
Out of Tarlac too has come a soft hat woven of buri raffia, something that seemed to appeal to women visitors.

Iloilo displayed a hat made of banban and resembling bamboo in a way, but stiffer.

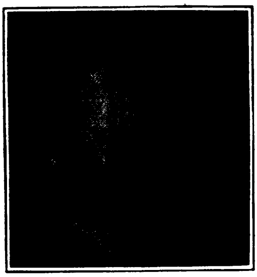
Our old friend the vegetable sponge creation was also in evidence in several booths. It generally provokes mirth, yet its possibilities when made up in forms that can be trimmed, are great.

While the spirit of originality was, therefore, much in evidence, it was a source of much gratification that the bulk of the hats shown in the booths of the educational exhibit were thoroughly commercial and showed that the schools are working in close relation with the households. Formerly bamboo hats were the most in evidence but these have now taken a much lower place. Buntal hats both in the Lukban and the Baliuag weave were much in evidence and were of excellent workmanship and decidedly commercial in form.

The sabutan hat has now become a staple instead of a novelty and even the abaca-braid hat, so recently introduced, is now looked upon as an ordinary commercial product.



The Buntal sawali hats were well made and of good shape.



Lucban hats were commercial.

In general, it may be stated that several new ideas in hats were exhibited and that the quality of workmanship and form of staple hats made in the schools are well commercialized.

TEXTILES.

Probably the Bureau of Education has met less success in the field of loom weaving than in any other branch of industrial instruction. The exhibits in the provincial booths would indicate that more attention is now being given to this branch, however.

In several were displayed sinamay and pinolpog of very good quality. It is evident, however, that the schools can do but little in increasing the quality of the native fabrics intended for use by Filipinos. With respect to them our efforts should be directed toward improving the looms and appliances upon which they are woven so that the cost of producing them will be reduced. In the exhibit there was displayed a bamboo loom equipped with sling shuttle and a lifter attachment. The sling shuttle increases the rapidity of weaving several times, while with the lifter attachment the weaving operator can introduce floral and other designs into the fabrics, thus doing away with the additional operator now required. The cheapness of this loom and its attachments indicates that it can be introduced into any Filipino community.

The most noteworthy advance in textiles has been the introduction of unusual types, particularly the buri-raffia cloth now produced in several provinces and the matting-like fabrics made from tikug and buri raffia. Tarlac displayed cloth made of buntal. All these textiles are excellent for rugs, couch covers, upholstery, pillow tops, and the like. Most of them are excellent background for colored embroidery.

A working exhibit of advanced weaving.

In this connection there was displayed in the exhibit of the technical division two types of hand looms which are cheap, require little space, and can be introduced into the primary grades.

HAND BAGS.

The provinces most prominently represented by hand bags made from straws, grasses, vines, and similar materials were Capiz, its baqui-baqui hand satchels being even more attractive and well made than those exhibited last year; Bohol with some fine samples from lupis and others from tikug, in open and closed weaves; Camarines with a line made from lukmoy and amlong, and others of calot-cagot; and Albay with samples of the latter material with a brown nito decoration. Pangasinan had its useful display of rattan hand bags and from Rizal came others in rattan, lukmoy, and in buri midrib. Those from Tayabas were either of rattan or of lukmoy; from Cavite, of balangot; from Laguna, of lukmoy; from Cebu, of buri and also of tikug, while Surigao and Misamis exhibited small displays made from buri, and Iloilo from buri midrib. This latter province also showed novelties in this line made from abaca braid, both in the natural color and in colored effects. More pleasing than ever before was the variety of cloth hand bags woven on the native looms by the schoolgirls of the Mountain Province.

FANS.

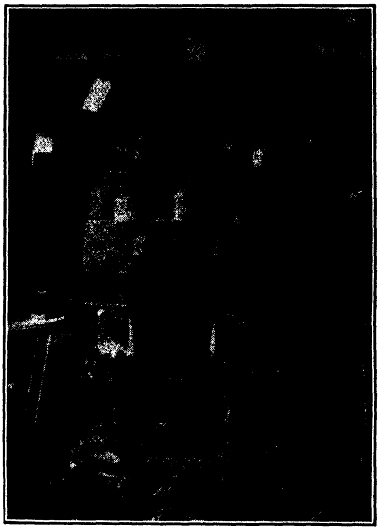
Relatively few provinces have devoted much attention to the making of fans which were almost entirely of vetiver root, with handles of small bamboo roots, wrapped with nito, or carved lanete wood. Ilocos Norte, Ilocos Sur, Iloilo, and Albay were represented in this branch of work. Cagayan had a sample similar to that commonly known as the palm-leaf fan, made of interwoven pieces of colored bamboo, which has interesting possibilities, as has that made of karagumoy from Albay.

HOUSEHOLD UTENSILS.

The application of school industrial work to the needs of the household was to be seen in various brooms and brushes exhibited. Capiz had a number of brushes made of cabo-negro, with wooden handles; also a new type of broom made of the buri midrib. Others of the cabo-negro type were shown from Mindoro. Bataan had the largest as well as the finest display of brooms. These were of various sizes, the material being lasa. In addition to being artistic in appearance, particularly as to the handles, they are really serviceable. From Tarlac there was a small display of hand brooms made from buntal, also from buri midribs with decorated crosspieces and narra handles. Still another province exhibiting in this line was Bohol, with a whiskbroom of abaca with nito handle.

CARVING.

The finest display in carving was unquestionably from the Mountain Province. Its banner piece was a group having an oval base on which were standing four Igorot warriors near the edge and in the center of which was another warrior in full war headdress, the four warriors sustaining on their heads another oval piece around which ran a carved molding in bas-relief showing typical scenes of Igorot life and upon which there rested a sculptured stone bust of an Ifugao. Other pieces from this province were spoons with carved figures of Igorot men and women; and pipes with carved bowls, single and in sets. From Antique, Cebu, and Cavite came specimens of carved bamboo pencil and flower holders. The latter province also had some carved boxes with lids, made from sections of the bamboo. The usual display of carved boxes of lanete was shown from Ilocos Sur, and from Union and Zambales came carved picture frames of the same wood. Pin cushions with turned wooden bases and carved coconut tops, into which plush filling had been inserted, were a novelty seen in the Leyte booth. Paper knives of camagon with carved tinigre heads were sent from Capiz, and from Iloilo carving of a similar description in camagon and lanete, which might serve for heads of canes.



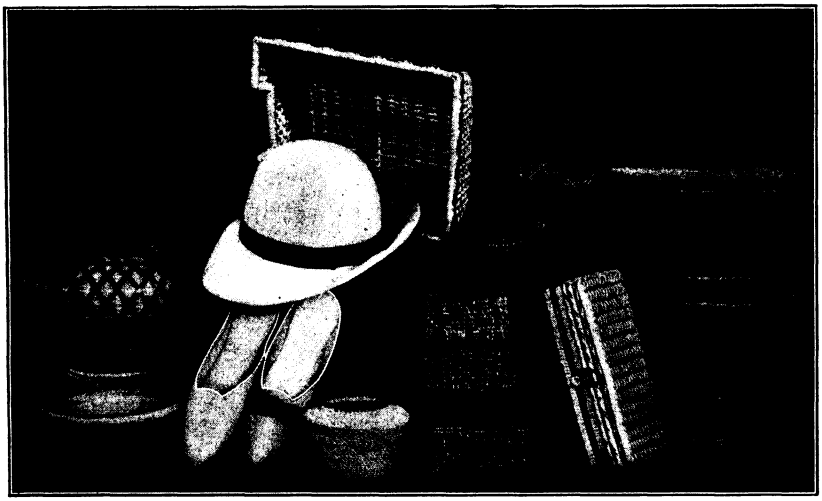
Carving from the Mountain Province.

NEW ARTICLES.

The fact that so few new articles have been shown at the 1914 Sales Exhibit indicates that a change in policy has taken place. Previously provincial representatives boasted of the new articles they displayed. Now they talk of the improvement shown in the products of their divisions. Indeed practically no new types of articles were seen, but there were many modifications of articles and many new uses of materials.

Laguna and Albay brought forward the use of heavy pandans (karagumoy and Majayjay pandan) for weavers in ribbed baskets and for strips in larger baskets in both plain and hexagonal weaves. Laguna and Occidental Negros demonstrated how coarse weavers could be effectively used in large baskets.

Vetiver baskets were shown from Ilocos Norte and Union. Buntal received attention in coiled and ribbed baskets and in cloth made with cotton warp, and Capiz sent hats and slippers made from seguran. Bamboo received much attention. Many articles had been adapted from native products, as for instance the baskets and cigarette cases of Palawan, the sewing basket of Union, and the sewing basket with cover from Pangasinan. On the other hand the Pampanga and Bataan bamboo baskets are entirely new articles as are the coiled bamboo baskets from Bulacan. Several new forms of Zambales baskets were shown. Lupis baskets loomed large in several booths, but the articles are as yet far from satisfactory. The jewel basket from Bohol received much favorable comment.

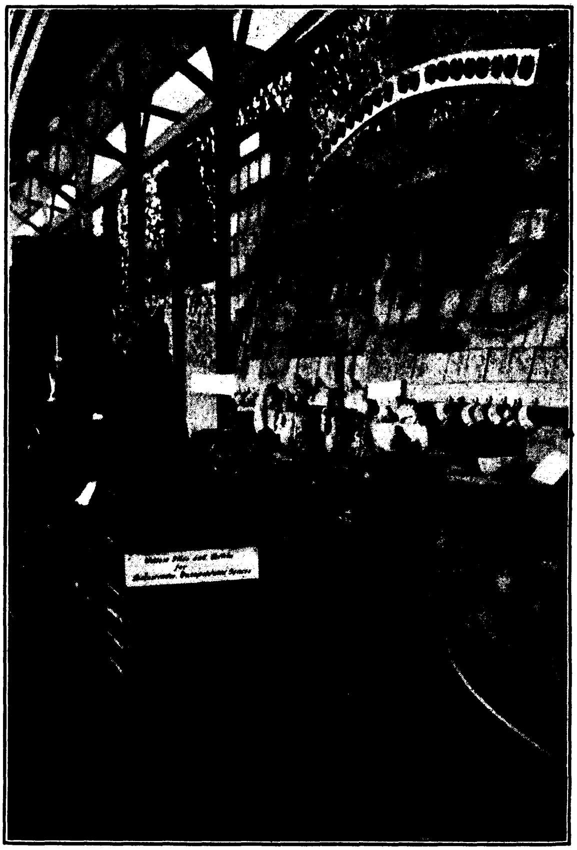


Some new types of articles.

SPECIAL FEATURES FROM INSULAR SCHOOLS.

One of the most striking features of the exhibit from the Philippine School of Arts and Trades was the work in ceramics. As arranged the exhibit consisted of a rectangular space with low front and side walls made of hollow tiles and bricks, at either front corner of which were posts upon which there rested a grotesque figure of an animal made in terra cotta. To the rear and at a slight elevation, in the manner of a long panel, was shown a pastoral scene in the Philippines made from terra-cotta tiles. Other articles in this display were various small animals, pitchers, small statues made in terra cotta, both glazed and unglazed. In pressed and thrown work were numerous flower pots and vases. Three of the most unique pieces were native stoves differing somewhat in shape and arrangement. In the opinion of many, this work has undergone a marked improvement over that previously exhibited, both as to variety and quality.

The iron-working department had on exhibit a full-sized sensitive drill-press, small models of horizontal and upright engines, samples of blacksmithing work, and exercises in filing and chipping; the wheelwrighting department, a carromata, carriage wheels, and wheelbarrows. In turned work many of the most beautiful native woods were to be seen in such articles as large and small serving trays, jewel boxes, collar boxes, candle sticks, picture frames, mallets, trinket boxes, and trays.



The ceramic section, Philippine School of Arts and Trades.

Drawing, both freehand and mechanical, constitutes an important element in trade-school instruction, and as was to be expected, samples of pupils' work in this line indicated the thoroughness and extent of the training given. On hinged leaves were arranged numerous blue prints used in the making of furniture, also other blue-print exercises followed in the various shop courses. Still other leaves showed half tones from publications of the Bureau of Education, the drawings for which were originally prepared in this school. Again there were machine-shop drawings, mechanical drawings, and blue prints to accompany instruction given in building design. And finally—which might appeal most to the casual observer—was an exceptionally fine collection of free-hand drawings, in water colors, charcoal, pencil, and ink.

In addition to its usual excellent display of needlework and basketry, the Philippine Normal School exhibited a model kitchen outfit which attracted considerable attention. This outfit included the utensils necessary for a model kitchen and procurable at a very moderate cost.

DESIGN AS ILLUSTRATED IN THE INDUSTRIAL AND SALES EXHIBIT.

The term design is an easily misunderstood one and is rarely given its just due from the many points of view which it includes. In its narrowest and most technical sense it may seem to mean only the decoration applied to a certain object. In its broad actual sense as it is used to-day by modern industrial workers, a good design means that each piece of work must be constructively and decoratively satisfactory and of good workmanship.

To be constructively satisfactory the piece of work must be simple, useful, and beautiful in its related proportions. A common mistake is one which regards elaborate construction as contributing to the beauty or value of a design. On the other hand simpleness does not imply plainness and the best designs, either of modern or historic times, will all answer the test of simplicity.

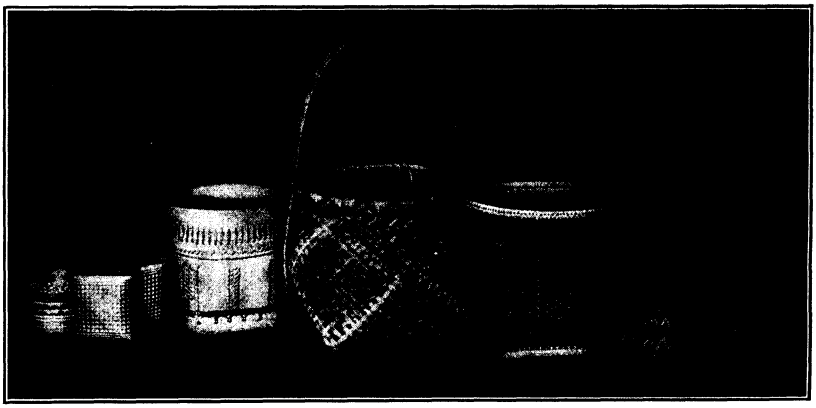
The tendency of amateur workers is to add meaningless elaboration under the mistaken impression that this conveys an expression of increasing skill. The result absolutely loses the spirit of the orignal design and often approaches absurdity.

No piece of work is constructively satisfactory unless it is made for a definite use and fitted to that use in every detail which the materials at hand and the conditions of construction allow. For example, a chair must in a general way be suited in shape and size to the special part it is to play in the household. Further than this, details which enhance its suitability should be added to it in just such proportion as the availability of material and skilled workmanship will allow. Of course on its complete usefulness depends the fact that its material be wisely chosen for convenience, service, and commercial value if that be the object.

The common stalk of bamboo and the simple curves of a shell are perfect examples of beautifully related proportion. Depending then on the studious developing of strength, grace, and balance in the relations of the component parts of an object, such beauty can either be acquired or ignored.

To be decoratively satisfactory, the general shape of an object must possess a simple appealing outline while all the parts are harmonious and closely related. Whatever decoration in line or surface pattern is added must continue this harmony of the whole.

Color decoration may be either as bright and vivid or as soft and dull as will aid in suiting the object first for use, and second for pleasingness and attractiveness to the eye.



Baskets showing good application of Philippine design.

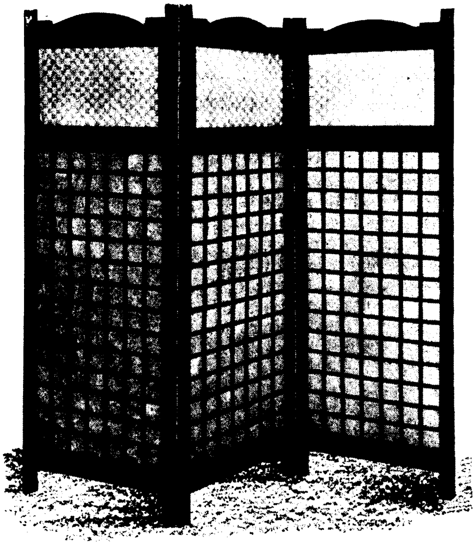
A design is a regular and exact thing, a definite solution of a certain problem, whether it be in the formation of the sides of a vase or basket, or in the repetition of a tiny motif over a surface, or in the joining of parts of a piece of furniture which shall make it strong, simple, and effective, and the idea of good workmanship is so bound up with the "solving of a problem definitely" that it is ordinarily impossible to pronounce a design satisfactory which is not as regular and definite as practical human skill can make it.

Good workmanship can be obtained only by effort on the one hand, and on the other by plans which insure designs related to the ability of the worker. These designs must furthermore provide for the use of materials practical, manageable, and substantial.

These tests, after all, ask simply that a given object be planned and made for a definite use, that it be simply and sanely constructed, that it be good to look upon, and that it be well made.

The native baskets seem to fulfill these requirements in the most simple and direct manner with a splendid feeling for construction and the application of decoration which, however, seems to be ignored in many instances when applied to other shapes and forms.

In the 1914 Bureau of Education exhibit at the Exposition the baskets proved by far the best examples of applied Philippine design. Those of Palawan were as a group satisfactory in most of these tests. The particular merit of the baskets, besides that of their good workmanship, was the attractive way the decoration was used in a surface pattern which gave a satisfactory balance of dark and light through a simple and effective use of the material.

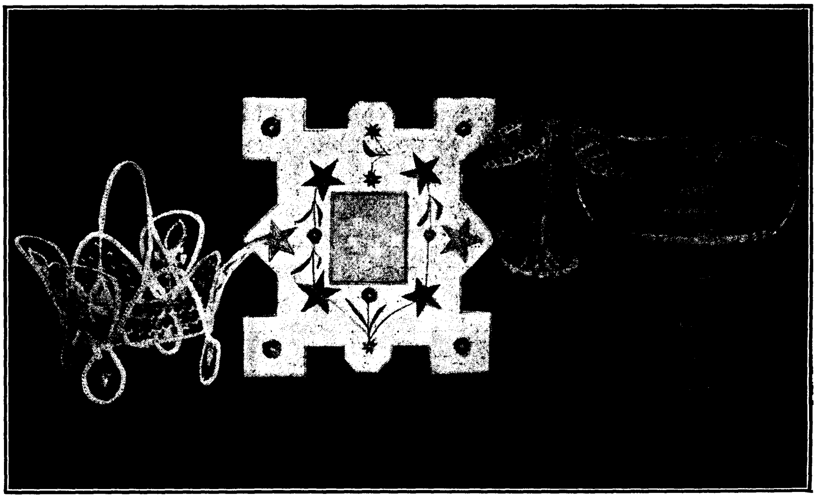


A camagon screen made in exact accordance with a General Office design.

A number of baskets were shown which were important on account of the original construction of the basket. In many cases a new material was used in a satisfactory way and in others a new basket useful and good in design was evolved.

Other noteworthy examples of Filipino design are the baskets shown in the illustration. The shape, utility, and the use of the decoration on these baskets are satisfying and restful and the decoration is so used as to accentuate rather than disguise the structure. The use of tortoise shell for the top and bottom with nito embroidery of the jewel box, is particularly attractive.

The illustration of a camagon screen shows a General Office design which has been carried out in exact accordance with the directions on the blue print. Three Philippine materials are used here with due consideration to the tests of a good design, and the result is particularly good in the harmony of color and materials, and the division of spaces. The fact cannot be too greatly emphasized that standard designs for the field are worked out carefully for that particular article and any change in measurements or deviation from instructions changes the design and generally results in a failure.

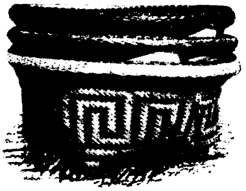


Gewgaws are now rarely seen.

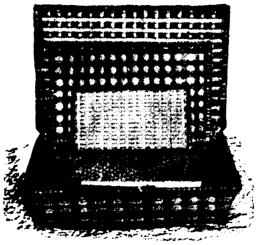
THE COMMERCIAL SIDE.

The commercialization of industrial instruction is best brought home to the teacher who has been closely associated with industrial education for some time, when he deliberately sets about to find gewgaws among the articles on sale. In this article there are shown illustrations of four such products. Most of them were only obtained after thorough search underneath the counters.

As a matter of fact, one of the articles was displayed in considerable quantity in a certain booth and is reported to have sold well for local use. That fact may be considered by some as sufficient reason for continuing the production of the gewgaw in the schools. Such a policy would, however, entirely ignore the educational side of our instruction, for it is as important to raise the standard of artistic taste in pupils as it is to put pesos into their pockets.

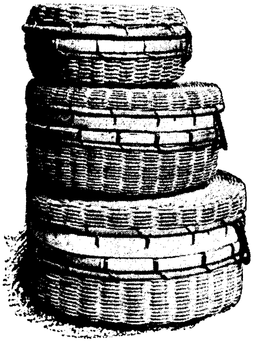


The Union workbasket.



A rough nest.

In relation to these there is also shown a group of baskets such as composed at least 90 per cent of the articles exhibited. In examining these, one finds the essentials of commercial products. Each one possesses great utility and is constructed for a purpose. Each is well made and possesses that individuality necessary for successful handicraft product. Each has good structural lines and is well but not overly decorated. Each is made of materials appropriate to its size and use (neither too fine nor too coarse), and finally, the price of each is in proportion to its value.



A close-fitting nest.

Flat rims are artistic and assist in telescoping.

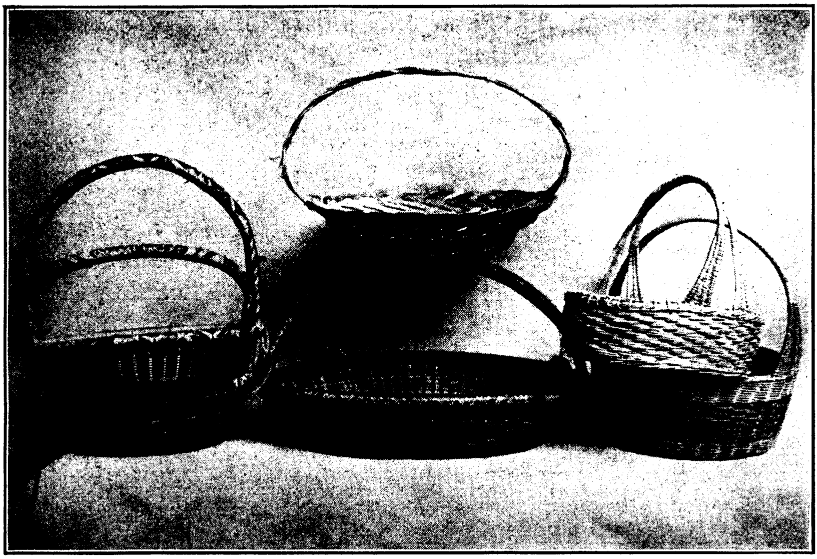
There is no doubt but that we have passed the period when the criterion of the worth of an article is its fineness of workmanship. Now the first question is what shall be the use of the article to be made, after which there comes the question of its design and texture. Indeed the pendulum has swung so far from the extremely fine Polangui work, in which useless wastebaskets were formerly produced, that there is reasonable fear that our school work may become too coarse. This was noticeable in at least one provincial booth. The articles in question were shown in considerable quantity and were all thoroughly commercial, but the question arises as to whether they should have been constructed as educational exercises. There seems to be no doubt but that from the educational viewpoint we should place a limit on both fineness and coarseness.

There is no doubt also but that the structural lines and designs and colors of articles, as a whole, show immense improvement upon previous expositions, although much still remains to be done along these lines in order to thoroughly commercialize our products.

In this exhibit some new ideas were worked out.

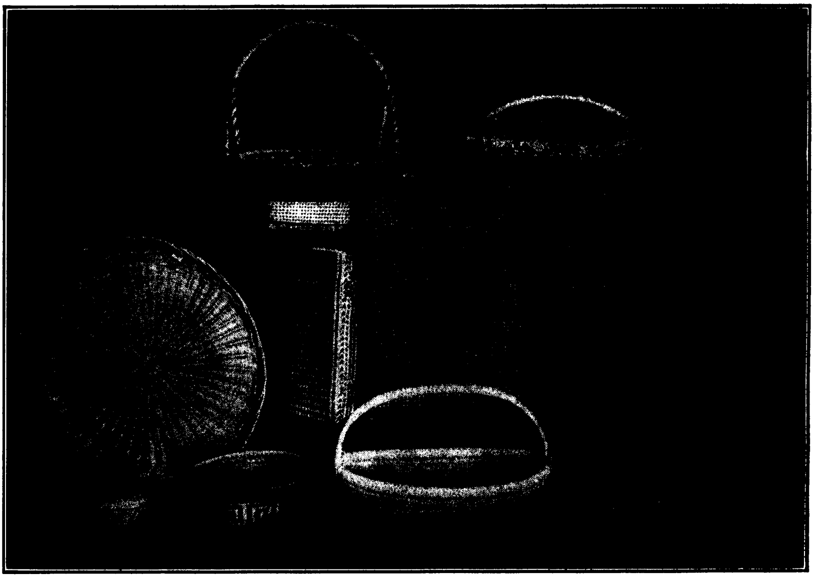
All these remarks also apply to lace, embroidery, hats, textiles, and in fact practically every line of industrial work.

The question of prices is always going to be a bugbear, chiefly because the standard of wages varies greatly in the different provinces and the prices placed on industrial articles tend to bear the same relation. The whole question of prices will, in the long run, be determined by the cost of production (raw materials and labor), and each province will in the end produce those articles for which favorable physical and labor conditions most fit it. Ridiculously low and high prices were not much in evidence this year. A couple of provinces sent in embroideries priced at two or three times for what they can be bought in Manila and some of the native baskets could be duplicated at from one-fourth to one-tenth the price asked in certain of the booths. Here and there an individual article was snapped by the bargain hunter. However, a level of prices was noted as one passed through the booths, a fact that would indicate that system and thought are being used in pricing articles. Just what the basis should be for articles sent to the Exposition is a matter for debate, but the general idea is that a retail price considerably above what would be charged in the provinces is the proper one for the Exposition, since such a procedure protects retailers in Manila. In the future, adjustments will probably be made by lowering the price in the provinces in order to reach wholesale prices there.



The large market basket in the center is being discarded for smaller sizes.

Certainly the provincial representatives gained most from the Exposition in determining the lines of work they should follow for the coming year in their respective divisions. Yet the impressions gained from sales at the Exposition should be carefully analyzed. The sales are made under exceptional circumstances and are therefore only a fair index of local values and a rather poor index of export values. Many articles that Filipinos buy do not at all appeal to Americans. An example is the small hand satchel. The curio idea sells many an article to local residents or strangers passing through when such articles depict local scenes or have local atmosphere. Yet in the United States these same articles would probably go begging at less than the cost of production because there they sell upon their artistic and utility value only. Such articles are the buri cushions embroidered with miniature houses. On the other hand many articles which might become staple in the United States either are not appreciated here or lack something to appeal to the local buying public. For instance, calesa cushions were so displayed in a certain booth that the public did not understand their purpose.



Utility is the keynote of most of the articles now displayed.

Had they been made up ready to use, they would probably have sold very well. Moreover, in the United States they would have been used as pillow tops and for that purpose they have a rather poor shape. Thus it is that many ideas may be excellent for export and yet this fact not be brought out by the sales because the articles do not appeal to the public here or because they have to be perfected or repriced.

Another very noticeable point was the beginning of wholesale purchase of articles by several large firms in Manila. The representatives of these firms naturally bought most from booths in which standardized articles were displayed. It takes no more time or expense to purchase and prepare for the market a hundred standardized articles than to purchase and prepare one odd article. Naturally the provinces which could point to a pile of a certain article, each of practically the same shape and each of the same price, interested those people the most.

The results of standardization and centralization of effort were evident in most of the provinces and were carried to the highest point in Samar which displayed a catalogue embracing all of its products. It is also evident that the importance of telescoping and nesting are being appreciated, for several crude nests of baskets were exhibited and the shapes of many baskets were such that they telescope perfectly.

The production of industrial articles in large quantity in households depends for one thing upon the availability of raw materials. It is noticeable that in many divisions, rarer materials are being substituted by abaca, bamboo, pandans, and other abundant materials many of which are obtained from cultivated plants.

THE STATISTICAL SIDE.

The 1914 Exposition of the Bureau of Education far exceeded all previous exhibitions in respect to quality, size, and number of articles exhibited as well as in money value.

The provincial exhibits alone numbered 46,186 articles averaging in cost ₱1.88 each, a total of ₱87,089.17. The exhibits of the Philippine Normal School, the Philippine School of Arts and Trades, and the city of Manila, increased this amount by 6,122 articles valued at ₱11,675.05 thus making an exhibit of 52,308 articles valued at ₱98,773.72.

Only 23,305 articles valued at ₱57,183.24 were exhibited in 1913.

This year the Province of Batangas made the best showing with 2,400 articles valued at ₱8,787.74; Bohol with 2,400 articles valued at ₱3,926.72, and Sorsogon with 2,400 articles valued at ₱5,518.65 being tied for second place.

Four provinces submitted 2,400 articles each. In money value, Pampanga was second with ₱5,584.36, Sorsogon third with ₱5,518.65, and Albay fourth with ₱5,110.10.

Twenty-three provinces had a 100 per cent representation by towns.

For 1913 the figures were as follows: Albay at the head of the list with 997 articles, ₱2,763.65; Camarines exhibiting the second largest number of articles, 952, and Capiz third with 777. The Pangasinan exhibit worth ₱2,650.57 was second in value, and Sorsogon third with ₱2,605.95.

The following tables show the total value and number of articles submitted by each province and a summary of the purchases for the Panama-Pacific Exposition.

STATEMENT OF EXHIBITS BY PROVINCES.

Divisions.	Number of articles.	Value.	Divisions.	Number of articles.	Value.
Albay	2,354	₱5,109.80	Occidental Negros	2,010	₱3,169.60
Antique	366	509.95	Oriental Negros	500	1,065.85
Bataan	1,084	1,820.35	Palawan	449	846.20
Batangas	2,400	8,787.74	Pampanga	1,960	5,584.36
Bohol	2,400	3,927.32	Pangasinan	2,400	3,364.60
Bulacan	956	1,517.35	Rizal	771	1,544.20
Cagayan	315	1,011.55	Samar	1,000	2,424.20
Camarines	2,400	3,257.00	Sorsogon	2,361	5,518.95
Capiz	2,397	3,027.75	Surigao	520	1,112.10
Cavite	1,000	1,365.95	Tarlac	999	2,225.50
Cebu	2,238	3,674.67	Tayabas	2,109	3,019.50
Ilocos Norte	2,325	2,651.40	Union	1,000	1,536.25
Ilocos Sur	1,000	1,516.60	Zambales	520	619.80
Iloilo	2,373	4,160.18			
Isabela	200	355.60	Total provincial	46,186	87,098.67
Laguna	1,789	3,592.46	Manila city schools	5,050	7,975.40
Leyte	1,000	1,918.05			
Misamis	357	427.02	Philippine School of Arts and Trades	432	2,915.00
Mindoro	278	395.05	Philippine Normal School	640	784.65
Mountain	955	2,728.35			
Nueva Ecija	1,000	2,838.02	Total	52,308	98,773.72
Nueva Vizcaya	400	475.40			

PURCHASES FOR PANAMA-PACIFIC EXPOSITION.

Divisions.	Number of articles.	Value.	Divisions.	Number of articles.	Value.
Albay	1,220	₱2,983.95	Mountain	523	₱1,454.20
Antique	68	71.75	Nueva Ecija	309	888.95
Bataan	155	214.85	Nueva Vizcaya	161	224.50
Batangas	811	2,296.41	Occidental Negros	485	831.40
Bohol	1,036	1,858.25	Oriental Negros	184	463.60
Bulacan	412	650.55	Palawan	154	224.60
Cagayan	102	218.35	Pampanga	251	272.95
Camarines	790	655.80	Pangasinan	596	585.20
Capiz	1,007	1,106.65	Rizal	171	340.70
Cavite	127	207.25	Samar	427	979.80
Cebu	696	1,670.15	Sorsogon	1,244	2,855.55
Ilocos Norte	1,013	1,106.70	Surigao	106	211.00
Ilocos Sur	349	600.15	Tarlac	324	639.05
Iloilo	451	858.93	Tayabas	791	1,261.90
Isabela	27	37.00	Union	465	377.60
Laguna	411	600.05	Zambales	202	192.75
Leyte	416	605.95			
Mindoro	47	52.95	Total	15,645	27,721.59
Misamis	114	122.15			

PRIZES AWARDED.

Through the generosity of the Philippine Exposition Board fifty sets of prizes were awarded for the best exhibits in forty-six groups and for four schools. The prizes awarded in each group were: (*a*) A gold medal for the best exhibit in each class, (*b*) a bronze medal for the second best exhibit, and (*c*) certificates of honorable mention to especially meritorious exhibits that were not awarded medals. Insular schools were not allowed to compete with the provincial and Manila schools but were awarded special prizes.

The judging was done by a committee of fifteen. Each article in the various groups was carefully considered by one or more members of the committee. The closeness of the competition in practically every group rendered the judging extremely difficult and was proof of the great care exercised in preparing the exhibits.

PRIZE WINNERS.

Class.	First prize.	Second prize.	Certificate.
Baskets:			
Polangui	Bohol	Albay	Leyte.
Common bamboo for native use	Batangas	Palawan	Zambales.
Export bamboo from model	Zambales	Union	Iloilo.
Air root	Tayabas	Rizal	Laguna.
Platted (buri, pandan, etc.)	Albay	Bohol	Capiz.
Coiled strip (lupis, pandan, buri)	do	do	Samar.
Coiled fiber (abaca, maguey, raffia).	Ilocos Sur	Albay	Bohol.
Coiled stem, (nito rattan, kilog)	Cagayan-Isabela	Laguna	Samar.
New types	Union	Tayabas	Ilocos Norte.
Articles from mat and matting materials:			
Mats	Samar	Albay	Rizal, Bohol.
Small articles made from mat materials in mat weaves.	Rizal	Bohol	Samar.
Matting	Bohol	Iloilo	Do
Textiles:			
Common native	Camarines	Mountain	Laguna.
New types from native fibers	Bohol	Occidental Negros	Tarlac.
Hats from native materials: Commercial.	Bulacan	Tayabas	Capiz.
Slippers:			
Abaca (maguey and similar fibers).	Bulacan	Batangas	Sorsogon.
Straw	Batangas	Pampanga	Pangasinan.
Other	Cagayan	Capiz	Do
Plain sewing:			
Children's clothes	Albay	Nueva Ecija	Occidental Negros.
General plain sewing	Laguna	Mindoro	Nueva Ecija.
Embroidery:			
On native materials	Manila	Laguna	Oriental Negros.
On foreign materials—dress patterns, etc.	Albay	Ilocos Norte	Zambales.
On foreign materials—for the table.	Palawan	Batangas	Leyte, Ilocos Sur, Surigao-Misamis, Pampanga.
Handkerchiefs	Leyte	Ilocos Norte	Tayabas, Ilocos Sur, Union.
Baby dresses	Manila	Bohol	Union.
Lace:			
Irish crochet	Albay	Sorsogon	Camarines.
Bobbin lace	Batangas	Leyte	Pampanga.
Other laces	Albay	Nueva Ecija	Manila.
Furniture:			
Bamboo, rattan, or combination of both.	Pangasinan	Samar	Laguna.
Wooden—intermediate shops	Mountain	Laguna	Pangasinan.
Miscellaneous:			
Hand bags other than macramé, lace and embroidery.	Bohol	Capiz	Iloilo.
Brooms, brushes	Tayabas	Bataan	Laguna.
Fans	Union	Ilocos Norte	Ilocos Sur.
Carving	do	Iloilo	Do.
New types of articles	Capiz	Bohol	Laguna.
Agricultural:			
Farm school exhibits	Batangas Farm School.	Indang Farm School.	Batac Farm School.
Seed exhibits	Tarlac	Ilocos Sur	Occidental Negros.
Vegetable exhibits	Batangas	Union	Pampanga.
Corn ears	Intermediate School, Tubao, Union.	Intermediate School, Tanauan, Batangas.	Intermediate School, Balañga, Bataan.

PRIZE WINNERS—continued.

Class.	First prize.	Second prize.	Certificate.
Provincial trade school furniture exhibits.	Oriental Negros	Cebu	Bulacan.
Miscellaneous:			
Provincial booths	Union	Palawan	Ilocos Norte.
Preserved fruit exhibits	Leyte	Pampanga	Laguna.
Miscellaneous: Macramé exhibits	Manila	Rizal	Pampanga, Laguna.
Philippine designs, Application of Philippine design: Any article.	Palawan	Cagayan-Isabela	Iloilo.
Original constructive design: Baskets.	Union	Pampanga	Zambales.
General Office design: Any five articles.	Mountain	Albay	Batangas.
Special prizes: To be competed for by Central Luzon Agricultural School, Tanauan School Nursery, and Agusan Agricultural Exhibit.	Agusan schools	Central Luzon Agricultural School.	Tanauan intermediate school.

Group No. 47.—A first prize to the Philippine Normal School for the excellence of its exhibits in housekeeping, embroidery, basketry, and plain sewing.

Group No. 48.—A first prize to the Philippine School of Arts and Trades for excellence in its exhibits in woodwork, iron work, pottery, drawing, and wheelwrighting.

Group No. 49.—A first prize to the School of Household Industries for the excellence of its exhibit in embroidery.

A WRONG CONCEPT.

In reading Standards in Education by Chamberlain, the attention of all readers interested in the Philippine Islands is especially attracted by the reference which the writer makes to the Bureau of Education exhibition at the St. Louis Exposition. He praises very highly the display of native handwork, and criticizes most severely the glass case containing sample stitches, pin bowls, flower sticks, and corner shelves. These, the author states, were pointed out to him by an American teacher in the Islands as being the best work in manual training done by school children. To anyone who had the opportunity of visiting the Bureau of Education Expostiion of 1914, this statement seems almost incredible. To be sure, in our last exhibition a very few such articles could be found by careful search, but these few were kept out of sight. This extract is a good illustration of what one person who is not fully conversant with the aims and accomplishments of the Bureau in industrial work can do in spreading a false impression. The American teacher gave this wrong concept of our industrial standards to Professor Chamberlain who in turn incorporated it in his book and thus spread it through a great many schools. The quotation in question is as follows:

> This matter of the real as opposed to the artificial in manual training was brought home to me most forcibly in two ways at the St. Louis Exposition. It was remarkable that while in high-school work some little attention was given to what might be considered the thought processes, in almost every elementary school course shown, a traditional sameness was apparent, the flower sticks and the plant labels being always in evidence. What a welcome change, however, when one visited the exhibits from the country of the marvelous little Filipino. Those who saw this exhibit will recall what a vast array of native handwork was shown, rugs, baskets, articles of furniture, utensils for household use, tools, decorative materials—these and a host of other things were exhibited, all work calling for constructive ability and appreciation of design. It was with a feeling of delight that I observed some of the specimens of handicraft of the children of these Islands, so useful, so beautiful, and made from the materials with which the makers were surrounded. As I examined these products, a young man, an American teacher in the Islands, asked if he might show me the best work in manual training done by the school children—something that would point clearly to the fact that they were being educated. I was dragged to a sacred part of the exhibit and shown a glass case, with a "Do not handle" sign, containing some of the most uselessly useful objects, from the standpoint of the makers, that could be conceived. There were bits of cloth with sample stitches, pin bowls, flower sticks again, corner shelves for bric-a-brac, and more of like character made of wood (much of it being American wood) by American tools, under American teachers, and containing elements neither of utility nor beauty.
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> I left the exhibit more saddened than disgusted. Instead of directing the native abilities and natural artistic tendencies along channels making for thought and power and for advancement mentally, commercially, and industrially, we are trying to cast them in a mold that has been fashioned to fit a race decades in advance, and, withal, a mold that is man made and too often, from the standpoint of utility and beauty, defective.

The development of the industrial work in the public schools of these Islands has been brought to such a point that our exhibit at the Panama Pacific Exposition will give no grounds for criticisms such as Professor Chamberlain made in 1906. Moreover, care will be taken in the selection of the personnel for the San Francisco Exposition and only American and Filipino teachers who have been especially trained in their work will be assigned to explain the significance of the exhibits. The man with the exhibit is as important as the exhibit itself. In order that the exhibits may be properly interpreted, the attendants should be those who have been actually engaged in the work, otherwise discredit may readily be thrown upon the whole educational system as happened in the above case.

EDITORIAL.

The Philippine Craftsman, 1914–15.

Owing to the adjustments made necessary by the appropriations for the present fiscal year, a number of inquiries have been received as to whether or not the publication of THE PHILIPPINE CRAFTSMAN would be continued for the coming school year. The steady increase of its subscription list is a safe index of growing usefulness and on this account THE PHILIPPINE CRAFTSMAN will be continued along the general lines of its present policy.

The Purpose of Industrial Instruction.

It is the aim of the Bureau of Education to provide instruction for each pupil in the public schools that will enable him to meet his actual life needs. The industrial instruction provided in the courses of study is designed to make each pupil industrially efficient. The survey of the industrial instruction in the schools, which is provided in the reports of the industrial supervisors, offers opportunity for a study of the results of this instruction and for an inquiry as to whether or not the industrial training of the past few years has accomplished what it has sought to do. Has the work in school and home gardening improved the living conditions by providing an increased and more varied food supply? Has the instruction in cooking and plain sewing and garment making been of such a character that it may be directly applied at the pupils' homes? Has the shopwork—the construction of furniture of wood, bamboo, and rattan, and the general carpentry work—improved the living conditions of the home? Has the instruction in the household industries been planned and carried out with the idea of teaching an industry or merely an accomplishment? In what degree is the instruction in hygiene and sanitation affecting the habits of living of the pupils? Has there been proper correlation between school work and local industries? Have new industrial processes been established or old ones improved? The period during which the present industrial program has been in operation in the schools is too short to permit these questions to be answered definitely but the value of the instruction which has been given can be determined with a fair degree of accuracy.

The Panama-Pacific Exhibit.

The Bureau of Education of the Philippine Islands has a distinct message to convey to the educational world at San Francisco in 1915. It is desired to display the handwork of the primary and intermediate public schools in the firm belief that the result will be a distinct surprise to educators. Industrial work in the United States began at the top and is slowly working its way through the various strata of the school systems on its way toward the bottom while in the Philippine Islands the opposite course is being taken.

Approximately $50,000 worth of school-made articles will be purchased from the school children and sent to the 1915 Exposition. This exhibit will comprise, in the main, needlework of all kinds, from plain sewing to the finest lace and embroidery obtainable from the schools; basketry of several standard types; various kinds of hats, mats, and textiles; bamboo furniture from the primary schools and hard-wood furniture from the trade schools; canned fruits, jams and jellies, and interesting novelties of various native materials.

It is planned to show at San Francisco a rather complete collection of industrial materials indigenous to the Philippines from which skilled pupil workers will fabricate articles in full view of the public in order that all the processes of the wonderful handwork of the Filipinos may be seen. The plants from which the articles are made will be shown, together with the raw materials in all stages of fabrication from the plant to the finished product.

The last few years have been devoted to experimentation in the schools but the time has now come when the limits of the work have been quite well defined and standardization in various lines can very profitably be undertaken both by the field and the central institutions such as the Philippine Normal School and the industrial department of the General Office.

During the present school year there has been a distinct recognition of the fact that certain kinds of work are essentially boys' work or girls' work as the case may be.

Another principle that has worked itself out rather clearly is that the handwork of any one section must be based upon the indigenous materials locally available in some little quantity or upon imported materials easily procurable.

Appreciation of the relation between transportation facilities and the export of industrial work has also been obtained. The necessity of giving such training in the schools in handwork as will make the pupil handy in a general way and also train him to do some one thing well is being accepted as a guiding principle more and more each year.

A broader conception of the task of instructing the Filipino people along industrial lines has been gained by the teaching force during the past year and more enthusiastic support has therefore been given the work on all sides.

The practice of holding preliminary exhibitions of industrial work in the barrios, municipalities, and capitals of the provinces before sending the exhibit to Manila has borne good fruit in those provinces where such a plan has been carried out. The provinces where the industrial exhibit is looked upon as something to be gotten rid of as soon as possible are growing fewer each year.

The practice of training each and every primary teacher to handle some line of industrial work has been instrumental in producing a very different type of teacher from that of a few years ago when the work was confined to teaching from a chart or book. The world of things begins to become clearer, definite knowledge of nature and nature's processes and laws are being learned, and the confidence that comes from exact knowledge of how to make a basket or mat or raise a good garden is making of the teaching force a power for progress in each community that could never have been developed under the old system of education.

"I would attach a manual-training department to every public primary school in the United States, where, beginning at the age of 9 or 10, under competent teachers, boys could devote an hour a day to the handling of tools. I would make the instructions compulsory. Thus at the age of 14 the boy of average intelligence and application would be able to use many of the tools employed in those trades which are fundamental and important. Then I would have free industrial high schools where boys who had completed the primary course might continue their education. Two years at such a school would qualify a student to take his place in the world as a first-rate mechanic."

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As soon as we begin to connect our schools with our industries and the vocations of our people we are confused by the demands made upon the schools. However, we are committed to a democracy of education, of which industrial education is but one phase. (Arthur D. Dean.)

INDUSTRIAL NOTES.

A SUCCESSFUL FARM SCHOOL.

The Batac Farm School is located on the provincial road connecting the principal towns of Ilocos Norte. It is 10 kilometers northeast of Currimao, the port of the province, and 19 kilometers southeast of Laoag, the provincial capital. The farm is just 1 kilometer west of the presidencia of Batac. Practically all traffic into the province passes by the school farm. Being so favorably located, the work being performed receives the maximum degree of publicity. The land is nearly level, there being only about 2½ meters difference in altitude between the highest and lowest points. By a lift of about three meters from an irrigation canal along one boundary, water may be pumped over the whole area of the farm. Plans are now being worked out to increase the area of the farm to 15 hectares.

People usually come to the Batac farm and buy all of our field crops. Some vegetables are sold in this way, but the larger amount of vegetables is sold in the markets of Batac and neighboring towns. The boys sometimes meet the boats at port Currimao, supplying them with fresh vegetables. When boys are assigned to sell vegetables, the unit price is fixed by the teacher and an accurate account kept of all products taken by the boys. The boys are required to bring back the money or the vegetables, even though they are wilted; and are never permitted to sell at a lower price than that fixed by the teacher. The people have learned to accept or reject our products at the price set, thus doing away with the bartering so common in transactions in the Philippines. Silk is disposed of in the same manner as needlework articles. The boys are permitted to harvest for their own use a one-third share of all individual gardens.

The farmers of Ilocos Norte are copying the crop rotations and are planting legumes, which yield well in this locality. A few years ago the school could gather all the manure needed by hauling it away from the corrals, but now the people refuse to let the pupils take manure on the ground that they need it for their own fields. Until last year men and animals could be hired to do plowing in the busy seasons, but now the farmers refuse to work at such times with the excuse that they must not delay their own plowing. Although these changed conditions are compelling the farm school to purchase more work animals and to resort to commercial fertilizers, they indicate that the community is being benefited by the work done in the school. These benefits will be realized more fully when more of our school boys take up farming as an occupation. Until recently the majority of the boys completing the farming course have been employed as garden teachers in the central and barrio schools of this locality, which accounts in part for the high standard of garden work

Cabbage growing on Batac farm.

done in the primary schools of the province.

A few of the Batac Farm School boys have taken up work with the Bureau of Agriculture, inspecting demonstration gardens and fields. Some have taken homesteads in the outskirts of the cultivated area of the province. Some are farming for themselves while others are farming with their fathers or brothers. Of last-mentioned class Eulalio Mangapit is a good example.

Two years ago Eulalio Mangapit left the Batac Farm School to assist his brother in the management of a 115 hectare ranch belonging to the family. Although his brother was considered a good farmer, as soon as Eulalio went on the farm it began to show improvement. This improvement is most noticeable in the diversification of crops raised. The land, partly upland the remainder lowland, is made to produce rice, corn, tobacco, kaffir corn, cowpeas, vegetables for home use, sugar cane, maguey, pineapples, and papayas. Cowpeas are planted between the rows of corn at the last cultivation. Mr. Mangapit is attempting to plant one crop of legumes on all his fields at least once in two years. From the profits from the farm last year the family has purchased a 5 hectare addition to their holdings.

After leaving the farm school Hermolasco Franco was appointed a municipal policeman. He saved a large percentage of his salary for two years and leased land which he is now farming. He has animals and plows sufficient for the cultivation of the 3 hectares leased. This young man began farming unassisted by parents or others.

With few exceptions the boys who have completed the farming course and are now working for a salary are saving their earnings with a view to investing in land and engaging in agriculture. (Joseph L. Davis.)

THE AMERICAN CONSUL IN CALAIS WRITES ON THE LACE INDUSTRY.

The Bureau of Education has recently received from Mr. J. B. Milner, American consul in Calais, France, a number of pieces of Valenciennes and torchon laces that are very beautiful both in workmanship and design. Several parts of his letter transmitting these laces to the Bureau of Education are of interest to the field and are quoted as follows:

"Now the fact is that Calais never had a handmade lace industry. Here only mechanical laces are made. So I was still in the dark as to what you really wanted. However, as Calais machine-made laces of the Vals and torchon type are noted throughout the world, I divined that handmade Vals and torchons were what you were wanting. So I set about to get these.

"After diligent inquiry in Calais and in Boulogne-sur-mer, I learned that real Vals and torchons were made in Bailleul, Nord, France, and that this was the nearest place to Calais where handmade laces were made. So on the 8th instant I went to Bailleul which is 60 miles from Calais. There I remained several days trying to get the articles you requested. You cannot imagine the difficulty one has in securing articles like this, as they are collected from women who make them, by small merchants who in turn sell them to Paris houses. I found no great stock from which to make a selection. So I purchased rather what I could get than just what I wanted, first satisfying myself that the laces were really handmade of the pillow or bobbin type. This I did by going into the country villages about Bailleul and in Bailleul itself among the women who make this lace. I saw them at work and have their word that they were working for the merchants from whom I bought. As a matter of fact it is impossible to buy this real lace from the makers who make it a piece at a time and deliver it to a merchant. The makers have no stock at all and are not disposed to sell direct as they are dependent upon their merchant who really not only wants all they make but much more than they make.

"You will note that the quantities of each kind are not as you requested. My excuse for this is that I had to take, as to quantity of each, just what I could get as the merchants refused to cut in 3-yard lengths, except only in a few instances as you will note. The prices I paid are the same as those paid by the Paris buyers. So the merchants told me and I have assurance that they told me the truth.

"I note what you want as to insertions and edgings to match, but, both in Vals and torchons, I have been unable to get the exact insertions. I took what I could get and if it does not meet your wants it is the best I could do after spending much time in search.

HISTORY OF THE INDUSTRY AT BAILLEUL, FRANCE.

"The industry of handmade lace at Bailleul is little known. In the museum at Bailleul are exhibited the handiworks of this old Flemish town, from the commencement of the eighteenth century down to the present time. In fact only the older class of women are capable of making the finer articles such as the one which is invoiced 17.85 francs per meter.

"I visited a school at Bailleul where young girls are taught by two old Flemish maids who have reached their fourscore years. A strong effort is being made to keep the handmade-lace industry alive. The cost of living is so high that the younger people cannot afford to work at lace making and prefer to go into the linen mills where they can earn more. The demand for handmade laces is said to be much greater than it was a few years back. As to designs one cannot remark any great progress. Even now some of the older designs are most sought after. Naturally, in point of design, the handmade lace does not equal the machine-made lace in Calais, as a machine can work designs that would take a woman too long to make by hand. While Calais is the world's most noted center for making laces in imitation of those sent by me, yet the comparison of the two shows the handmade much more beautiful. It is just the imperfection of handmade lace which after all adds to its beauty, and just this imperfection is most difficult of imitation by mechanical means. However some of the Calais makers have arrived at such a high degree of imitation in Vals and torchons that one must be an expert to tell the difference. This fact no doubt has a depressing tendency on the handmade lace industry in Bailleul. In point of designs in all kinds of lace, Calais can be said to be the richest center in the world. Here all kinds of laces are imitated, that can be imitated on weavers' machines."

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THE LITTLE THINGS THAT COUNT.

Wooden drawer pulls.—The writer has in his bedroom a colonial mahogany dresser with wooden pulls of the knob variety. These were given the preference in selecting the dresser over glass because they harmonize with the material in the dresser itself, but they are disappointing because they are poorly finished. They have evidently been turned on some automatic or semiautomatic machine, made in quantities and apparently at a price which, according to the manufacturer's reasoning, precluded a careful finishing off of the work with sand paper. When it came to staining and finishing they were brought to the same general color as the face work, but the finish on them looks like a cheap smear as compared with the face and top of the dresser.

These pulls are the only displeasing things about the piece of furniture and it would only have taken a little work and pains to have made them of equally high quality in finish as the rest of the woodwork. It would not have added a dollar to the cost of the piece of furniture, and it certainly would have added more than a dollar to its value.

Edges and insides.—Another little thing in connection with finishing is that now and then one finds a lack of careful attention to the edges of the tops and to the edges and insides of drawers, and many other little things of this kind. The finisher, no doubt, goes on the theory that the things that the eye of the observer is centered on are tops, panels, drawer fronts, and that these little details are not important. Consequently it is a waste of time to give them the same attention as is bestowed on the more conspicuously exposed parts of the furniture. This may have been a tenable theory one time, but it is a poor standard these days. It is a well-known fact that the furniture buying public to-day is a discriminating public, especially that portion of it looking for quality in furniture. More attention is often given to a careful examination of edges and insides than to the general outside appearance which can be taken in at a glance. Therefore messy work in staining, which makes splotches and ugly streaks extending from the outside to the inner edges of the furniture, and poor finishing on the edges, tells the discriminating buyer that these things are made for show rather than satisfaction. It is only when this same discriminating buyer finds a piece of furniture that has been as carefully looked after on the edges and insides as on the outside that he breathes a sigh of real satisfaction and thinks he has discovered something that has real value all the way through it and not merely a semblance of it on the outside. Therefore, these little things count often for a whole lot more than they cost. Attention to them will pay returns just as surely as the careful finishing of the more exposed parts of the fine furniture.

Appropriate castors.—Another little thing that is of more importance than the furniture manufacturers seem to think is the matter of appropriateness in castors. There is especially in mind right now a case of a massive parlor set, with perhaps more than twice the average amount of weight as well as body in the furniture, which is mounted on some very cheap castors. They are so small that they make dents in the hardwood floor and when a piece of this heavy furniture is moved over the floor the castors leave a mark. These castors would have done very well on cheap, light furniture, but for furniture of the size and cost represented in this case, it would not have taken more than a dollar more invested in appropriate castors to have made the set worth easily $5 more in value, and perhaps $10 more in satisfaction to the buyer. The best of castors are not very expensive when their cost is compared to the price of a finished piece of good furniture. It is certainly a penny-wise and pound-foolish policy to spoil the satisfaction of furniture by pinching out a few pennies in the first cost of castors. There are plenty of these castors made and offered at prices that make them one of the little things that count. A man who puts up a piece of furniture he is proud of and uses cheap castors he would be ashamed to use in his own house, is breeding dissatisfaction and preparing the way to trouble in getting the price he should for his product. A man who realizes fully the value of these things can, by proper thought and attention, and expending of just a little more money in first cost, help put quite a lot more real value to his product. (*Furniture Maker and Artisan.*)

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WILLIAMSON FREE SCHOOL OF MECHANICAL TRADES.

[Bulletin No. 14.]

BONUS SYSTEM.

Trades bonus plan applies to juniors and seniors.

The pupils of the school are working under a bonus plan, a brief outline of which is presented below:

About 50 per cent of their shop exercises, both abstract and concrete, are worked on an estimated time basis based on a journeyman's time. When the pupil is assigned a task, the estimated time allowance for the operation is stated.

> During the first six months of his junior year he is allowed 20 per cent more than journeyman's rate.
>
> During the second six months of his junior year he is allowed 10 per cent.
>
> During the first six months of his senior year he is allowed but 5 per cent.
>
> During the last six months of his senior year he must equal young journeyman's time.

When he falls within the estimated time he is given a bonus credit. If he works to the even estimate he stands even. If he exceeds the time he is given a deficit grade.

If he comes out even in the majority of his estimated time exercises, he is allowed the regular time for the holidays. If he makes a bonus credit in the majority of exercises, he is allowed an extra half day to each of the short holidays and a full day to the long ones. If he makes a deficit grade, he is detained a period corresponding to the one allowed for bonus.

Academic bonus plan applies to all classes.

If the pupil's daily recitation grades and all examination grades exceed that of "Good" (which is over 80), he earns a bonus academically. If his grade is "Fair," that is between 70 and 80, he stands even; if below 70 he has earned a deficit, and the same allowances are made for the work in this department as for that in the shop departments.

Deportment bonus plan applies to all classes.

If the pupil's deportment record is absolutely clear he is allowed an additional half day to each of the shorter holidays, and a full day to the longer ones.

It is possible for the pupils to earn one or all of the bonus credits. If they qualify for bonus in the three branches, shop work, academic work, and deportment, they are allowed an additional credit of a half day, whereby a pupil whose record is high grade in all respects may earn two additional days for his Thanksgiving, Easter, Decoration and Fourth of July leaves, and four full days for Christmas holidays and the August vacation.

The bonus period covers the time between stated holidays.

THE CLASS OF 1913.

The first class consisting of 58 members working for two full years under the bonus system, completed their apprenticeship on March 29, 1913. On November 1, a letter and a list of questions were sent to each of them and we had a direct reply within five weeks to each of the 58 letters sent out.

The class consisted of 12 bricklayers, 15 carpenters, 8 engineers, 13 machinists, 10 patternmakers.

Their average rate of compensation is $18.03 per week. They are employed in nine States, in thirty-six different cities, towns, etc., with forty-six different employers—51 engaged in trade work, 6 in occupations for which their trade training fitted them, 1 not working at his trade. Prior to the introduction of the bonus plan the best average weekly rate of compensation of a class within six months after graduation was $16.60.

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TAKING STOCK—GARDENING.

To obtain success in gardening plans must be made well in advance and the time to plan is now. Besides the vegetables which your garden produced this year, there should be an extremely valuable by-product of experience; and its value will deteriorate rapidly with the lapse of time. The memory of your failures and successes are now fresh in your mind but they will be largely forgotten by the opening of the next school year unless they are written out for consideration. The only way in which you can have this experience in most valuable form is to write out for yourself and your successors a complete report of your garden work. This should give all notes of interest, such as vegetables raised and the varieties which were the most successful, the manures used and where they may be secured for the next year.

You must keep in mind that you will need seeds, fertilizers, and other things at the opening of the next school year, and as you are taking stock now of last year's successes and experiences you should profit by last year's difficulties and secure a considerable supply early. Often such material is scarce at the time when it is needed.

In taking stock it will be well to look after the tools and make note if you have had sufficient tools during the year and if these tools are in good shape at the close of the school. Also the tools should be properly stored, cleaned, sharpened, and oiled. If new tools are needed such a list should be sent to the supervising teacher in order that the tools may be available when wanted.

Seed boxes should be emptied of the soil which they contain, and pans, sprinklers, cans, and other utensils for the storage of water, soil, and other material should be cleaned and thoroughly dried in order that they will not deteriorate while stored. It will only require a day's work of the garden class to do this and it will be worth a good deal to you to have it done. It must also be noted that intelligent planning given to the garden work for the coming year not only interests you and the pupils but adds results.

These last days of the school year are days of construction and you have more time to think of next year's garden and to learn where to secure the seeds and other things you will need than you will have when everything seems to be needed at once. If you failed in making a success of any part of your garden work, either during the dry or rainy season, you may ask yourself these questions: Why is this a failure? Why is that a success? If the garden is improperly fenced, plan for fencing it now; if improperly drained, locate your drainage ditch now when you can remember where the water accumulated and how it can be drained off the garden. Review all your garden notes made during the year and from these notes make a summary of your successes and failures and give definite reasons for each.

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The principal of the Leyte Provincial High School at Tacloban has issued a most interesting circular showing in tabloid form some of the activities of his school during the first semester. The following extracts relating to industrial work are full of interest and suggestion.

INDUSTRIAL INSTRUCTION.

(June to December.)

HOUSEKEEPING AND HOUSEHOLD ARTS.

All the girls in the intermediate course, 128 in the sixth and seventh grades, take this course.

Cooking and housekeeping.—In addition to the food cooked in class as required by the course of study, the girls have cooked the following for sale:

Lunches	₱422.10
Jellies and jams	81.90
Total	504.00

The girls have earned ₱48.75 for themselves cooking and selling food on Saturdays.

Needlework.—The girls have made the following as part of their classroom work:

Athletic suits, pieces	201
Model lace books	342
Embroidery models, frames	114

The commercial work is embodied in the following list of articles:

17 embroidery pieces	₱92.50
12 bobbin lace pieces	34.60
2 plain sewing pieces	10.00
Total	137.16

Drawing.—In addition to following strictly the course of study, the drawing classes have made the following articles for commercial work:

500 post cards	₱50.00
250 correspondence cards	50.00
400 dance programs	10.50
400 lanterns	101.50
40 megaphones	2.00
50 masks	5.00
38 kodak albums	41.50
100 Christmas cards	20.00
50 calendars	10.00
20 calendars, large	15.00
20 candle shades	10.00
12 tally cards	.25
6 pairs stenciled curtains	15.00
15 stenciled pillow tops	11.25
10 table runners	15.00
12 desk blotters	3.00
9 water colors, large	9.00
Total	369.00

Ethics and sanitation.—In addition to following the course of study, the teacher and girls have treated daily on an average of three to four cases of cuts, bruises, illness, and the like. Before a pupil is excused on account of indisposition he is sent to the teacher of sanitation who treats him and tells him what to do after he reaches home in order to get well.

FARMING COURSE.

There are 227 boys in the farming course, and two teachers are assigned to the Tacloban School Farm.

About 6½ hectares are under cultivation. Over 2 of these were cleaned by the boys this year. In addition to this the boys have a good deal of other work to perform. The crops planted in August and September are not yet all harvested. The regular time to plant here is in January and February so the main crops will be planted then.

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KING'S SERIES IN WOODWORK AND CARPENTRY.

[By Charles A. King. Illustrated. Published by American Book Company.]

Elements of Woodwork.
Elements of Construction.
Elements of Woodwork and Construction.
Constructive Carpentry.
Inside Finishing.
Hand Book for Teachers.

This series consists of six volumes, five of them being intended as textbooks for pupils in manual-training, industrial, trade, or normal schools.

Elements of Woodwork contains chapters on the following subjects: Growth of Wood; Lumbering and Varieties of Wood; Care of Lumber; Tools; Glue and Sandpaper; and Wood Finishing. This volume presents in complete and concise form knowledge which every woodworker ought to know concerning the care and use of tools and the materials upon which he works.

Elements of Construction is adapted to the needs of students in manual-training schools. Chapters are given on the following: Tools; Working Drawings; Constructive Exercises; Supplementary Models; and, Arithmetic Questions.

Elements of Woodwork and Construction is a combination of Elements of Woodwork and Elements of Construction, and is intended for students in manual-training schools or other institutions in which elementary woodwork is taught.

Constructive Carpentry and *Inside Finishing* have been prepared for the use of students in technical, industrial, or trade schools, the instruction immediately following that given in the first two volumes of the series. In Constructive Carpentry the following subjects are covered by chapters: Masonry and Foundations; Forms of Construction; Mill Construction; Carpenters' Steel Square, Carpenters' Geometry; Roof Construction; Boarding in; Outside Finish; Roof Covering; and, Plastering. A glossary of terms used in architecture and carpentry is also given.

The volume on Inside Finishing treats of the following subjects: Heating, Ventilation, Sanitation, Refrigerators; Floor Laying, Inside Finish; Doors; Window Frames and Sash; Stair Railing; Painting, Hardware; Estimating; Arithmetic; and, Tables.

The last book in the series, a Hand Book for Teachers, is intended for the use of teachers and those students who expect to teach Woodwork and Carpentry as given in the other volumes.

The entire series has been prepared for use in American schools and the work as given in the various volumes is excellent. Philippine conditions, however, warrant a different treatment of many of the subjects; even so, it is believed that this series for purposes of general reference would make a worthy asset to the libraries of our local trade schools.

RESOLUTIONS OF INDUSTRIAL CONFERENCES.

The committee on resolutions submitted a report based upon the discussions held in the industrial conferences, February 3, 4, and 5, 1914. Among other things, the committee recommended the following:

1. That the Bureau endeavor to supply the field with a large variety of suitable designs and patterns covering all lines of industrial work.

2. That the making of articles of utility and profit be given more encouragement regardless of whether they look showy for exhibition purposes or not. The committee believes that too much emphasis is often placed on the making of articles for exhibition purposes regardless of their practicability.

3. That definite lines of industrial work be prescribed by the Bureau for each division, such lines to be assigned which either satisfy a local demand and improve the standard of living in the average Filipino household or cater to a stable foreign market and assure adequate returns for labor and material.

4. That, for obvious reasons, agriculture is of more importance for boys' training than any other line of industrial work, and that the course as outlined at present should be continued.

5. That a number of pottery schools be established wherever suitable deposits of clay are available and where pottery is not already being made. That more attention be given to the ordinary types of pottery used in the Filipino home and that the making of ornamental pottery be restricted.

6. That THE PHILIPPINE CRAFTSMAN has done a great amount of good, and that it be continued along present lines.

7. That the practice followed in certain divisions of giving to the pupils all of the money received from the sale of school-made articles,

above the cost of materials, be discontinued. That the amount to be given to the pupil be based upon the cost of labor in the locality. And that the amount over and above the cost of materials plus the amount paid to the pupil, be turned in to a pupil's fund, the amount to be paid to be determined by the division superintendent.

8. That the yearly carnival industrial exhibition should be held just after the close of the school year.

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THE NEW ASBURY'S DRAWING BOOKS.

[By D. R. Asbury.]

This set of drawing books consists of eight small texts in which the work is graded for the respective grades in American schools, and an additional volume on drawing with colored crayons.

There is also an additional set of eight Graded Practical Tablets for short courses. The price of each tablet is 15 cents. Asbury's books are well illustrated and are published by the Educational Publishing Co., Boston, New York, or San Francisco.

Throughout the texts the work is so divided that object drawing comes in the autumn when fruit objects are plentiful; formal drawing, in the winter when the most time can be placed on the teaching of method, principle and technical elements; and color drawing, in the spring which is perhaps most convenient as the colors of objects in nature such as trees and flowers are best.

Each textbook is carefully graded and it is intended that they should be used by the pupils themselves as texts. The text on Drawing With Colored Crayons, may be used in the different grades and the work correlated with that of the eight grades. In the Graded Practice Tablets illustrations are given followed by blank sheets for practice work and the courses are shorter than those given in the regular texts.

It is believed by some teachers that where the pupil draws with a drawing placed directly before him as in the practice tablet, there is danger of the pupil developing into a copyist but provision is made for avoiding this by the use of models. It is believed that the texts 1, 2, and 3 would make excellent books of reference for Philippine teachers in drawing and that some actual class work might be done from them provided that Philippine models and ideas are substituted for the American models given in the texts.

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HOW TO UNDERSTAND ELECTRICAL WORK.

[By William H. Onken, jr., and Joseph B. Baker. Harper Brothers, publishers, New York. 359 pages. Illustrated. Price ₱3.50 ($1.75).]

One of a series of Harper's "Handy Books for Boys." The boy is told how electricity is made. Dynamos and generators are described; he is told how these machines are driven and how electricity is distributed by the various systems. The use of motors and transformers is discussed. A chapter is devoted to the electric light and the kinds of lamps, another to electric heat and its commercial use. Under electric power are given its advantages and uses, such as in the making of shoes, printing, or in the machine shop. In electric traction it is shown that more money is invested than in any other branch of electrical engineering. The trolley, street car, locomotive, and automobile are illustrated and described. A chapter treats of the use of electricity in the home, showing its use for heating, laundering, cooking, sewing, and ventilation.

Electricity on the farm is used to operate milking machines, to drive grinders, saws, harvesters and thrashers. Considerable space is given to electricity in the hospital, on board ship, for mining and in the manufacturing industry. For protection there are burglar alarms, fire alarms, and fire engines or pumps. Electricity is described as a destroyer for blasting and in war.

For the transmission of intelligence are given the telephone, telegraph, wireless telegraph, and telephotograph.

This book is intended primarily for young readers and all descriptive matter and explanations in the text are simply and clearly set forth. This will be a valuable reference volume for our schools in which physics is taught or for beginning pupils in engineering.

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HARPER'S ELECTRICITY BOOK FOR BOYS.

[By Joseph H. Adams. 407 pages. Illustrated. Price ₱3.50 ($1.75). Harper Brothers, publishers, New York.]

This large volume written in simple English presents to the boy a vast field of information on electricity and electrical apparatus.

The first chapters are devoted to such subjects as cells and batteries, push buttons and switches, magnets, bells and galvanometers, each of which is illustrated and well described in detail.

Following is a chapter on resistance showing different forms of rheostats and wiring diagrams.

In the chapter on the telephone a boy should be especially interested for instructions are given for making the most simple types. Considerable space is given to both the line and the wireless telegraph. Instructions and details are given for the building of simple dynamos.

From Galvanism and Electroplating a boy will learn how to plate rings and ornaments.

Space is given to miscellaneous apparatus and to the preparation of materials for use in electrical apparatus. Formulæ are given for cements, battery fluids, glues, and varnishes. Electric light, heat, and power are discussed and the apparatus used for each described.

The appendix consists of a dictionary of electrical terms and phrases.

It is believed that this volume will show the boys what they can do for themselves in the construction of electrical apparatus, and that the text would be a valuable addition to trade-school or high-school libraries.

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CIVICO-EDUCATIONAL LECTURE NO. 8—CORN.

A new plan for giving this lecture was adopted for the present year. This plan provided for the lecture being given as one of the regular features of The 1913 Corn Campaign. The month of September was designated as the most suitable time for giving the lecture. A form was also provided for reporting the facts of interest in connection with each lecture.

The report from the Province of Batangas shows that undoubtedly the present plan for giving this lecture is securing desirable results. It is stated that this lecture was given in 82 different barrios with an aggregate attendance of 18,988 people. Of this number 7,215 were male adults and 4,324 were female. In this manner more than 11,000 adult Filipinos were instructed in points pertaining to the production and use of corn. Another desirable feature of the lecture was the fact that each lecture was illustrated with actual objects. These statements are for the Province of Batangas, but they form an idea of the actual good being accomplished by the civico-educational lectures. Taking these figures as a basis and making allowances for provinces which are smaller, it is believed that fully 400,000 people will be reached.

HARPER'S BOATING BOOK FOR BOYS.

[By Charles G. Davis. Harper Brothers, publishers, New York. 407 pages. Illustrated. Price ₱3.50 ($1.75).]

This large volume is written in simple English; it presents to the boy a vast store of information on boating. "The first step is to be at home in the water as well as on it." "Learn to swim." Although it is admitted that swimming must be learned by practice, valuable instruction is given on this step.

The main part of the text is introduced by instructions on the making of boat models. Following this comes the making of boats for actual use. The reader then is advanced into boat sailing. Lessons are given with tiller and sheet and with diagrams showing tacking and jibbing. An important part of the book is devoted to motor boats in which the "aim has been to afford a working ABC of motor boating." Attention is given to the installation of the engine and to engine mechanism and accessories. Advice is given on canoeing. "How to row" is explained by a former 'varsity oarsman'. The appendix consists of a valuable dictionary of technical terms as used in boating.

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FORGE WORK.

[By William L. Ilgen with editorial mention by Charles F. Moore. 210 pages, including illustrations and index. Published by The American Book Company.]

This volume was prepared by the author for the purpose of putting instructions on forge work into permanent form for the use of students. Chapter I deals with tools and appliances each subject being taken up in detail and well discussed. Chapter II treats on forging operations, commonly used. Chapter III gives a list of practical exercises, for the student, with instructions for making them. Chapter IV is on the treatment of tool steel, and Chapter V, on tool making and stock calculation.

One chapter is given to the steam hammer, tools and exercises, another to art smithing and scroll work.

Very interesting data tell of iron ore; preparation and smelting and the manufacture of iron and steel. Ten pages of formulæ and tables valuable to a metal worker are to be found in this volume.

The book is written in simple English and it is believed that the volume would be of great value to every student in forge work.

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EXAMPLES OF INDUSTRIAL EDUCATION.

[By Frank Mitchell Leavitt, Associate Professor of Industrial Education in the University of Chicago. 330 pages. Published by Ginn and Company, Chicago.]

In this volume the author has clearly defined manual training, industrial education, and vocational education, and their differences are shown. The demand upon industrial education by organized labor, education, and social workers; and the movements for reorganization are set forth. A chapter is devoted to each of the following: The Intermediate or Separate Industrial School, Vocational High Schools, The Trade School, Part Time Coöperative Schools, The Continuation School, and Vocational Guidance. Notes are given concerning legislation, in sixteen different states, as affecting industrial education.

The text as the title implies consists largely of "Examples of Industrial Education," most of which are American, and it is believed that most principals of vocational, especially of trade, schools, will find much valuable information in the volume.

HANDY-BOOK FOR GIRLS.

[By Anna Parmly Paret. 348 pages. Illustrated. Published by Harper Brothers.]

"Harper's Handy-Book for Girls," by Anna Parmly Paret, deals with home arts and industries. Part I treats of home furnishings. The second part offers instruction in simple carpentering, wood-carving and metal-work, leather-work, tapestry, bead-work and other crafts including chapters on enamelling, jewelry-making and block-printing. The third part deals with fancy work and embroidery. The fourth part gives directions for making various Christmas and Easter gifts. The last part deals, in general, with outdoor possibilities, herbariums, aquariums, and the collection of butterflies. The chapters on simple dressmaking and millinery are not practical.

A few suggestions might be obtained from the chapters on stenciling, clay-modeling, basketry and weaving, but aside from those chapters, there is very little in the book that can be adapted to our work here.

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HARPER'S MACHINERY BOOK FOR BOYS.

[By Joseph N. Adams. Harper Brothers, publishers, New York. 372 pages. Illustrated. Price ₱3.50 ($1.75).]

A single volume of three parts. Part I covers the principles of simple mechanics, tools, power and hydraulics. Part II deals with machinery for wood, stone, concrete, and miscellaneous purposes. In Part III the automobile, motor boat, and gas engine are described in detail. A chapter is given on valuable shop hints; another on formulas, and one on tables, gauges, and measures. The appendix consists of a dictionary of mechanical terms. The book is written in easy language which places it among those most desired in trade and high schools. Many of the machines shown are so simple and well illustrated that it is believed a boy with a little ingenuity could make them with but a few ordinary tools. This book "shows the boy how he can make the modern world of machinery his own"; it is practical and would make a valuable asset to our trade and high school libraries.

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HOUSEHOLD SCIENCE AND ARTS.

[By Josephine Morris. Illustrated. 256 pages. Published by American Book Co.]

"Household Science and Arts" contains suggestions concerning the best ways of keeping a house clean. It gives advice in regard to the care and preparation of wholesome foods, valuable information on table-setting and washing, definite rules for measuring ingredients, and experiments showing the composition of different foods.

The methods of cooking are clearly defined and the composition of foods and their food values are discussed. In addition to valuable hints on laundering and the keeping of household accounts, there are three hundred and fifty recipes and twenty sample menus.

All directions are expressed in simple language which make the work easily understood. It might well be used either as a library book for intermediate schools or as a reference book for cooking teachers, either in primary or intermediate grades.

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SCHOLARS' ABC OF ELECTRICITY.

[By William H. Meadowcroft, with favorable comments from Edison. 143 pages. Illustrated. Published by Hinds, Noble and Eldridge, 31-33-35 West 15th Street, New York City.]

In this text no attempt is made to teach the more advanced and technical sciences of electricity, but to offer such information, on the elementary principles, from a popular standpoint as will be readily understood by the pupils of the American grammar schools. The volume contains eighteen chapters on the volt, the ohm, the ampere, magnetism, the telegraph, electric lighting, batteries, and other subjects. Each of these subjects is described in detail in elementary English. Numerous illustrated experiments are given with instructions for working them out. It is believed that Philippine pupils of the secondary grades could obtain valuable information from this volume.

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ELEMENTARY WOODWORK—CARPENTRY FOR BOYS.

[By George B. Kilbon. 99 pages. Illustrated. Published by Lothrop, Lee & Shepard Co., Boston, Mass.]

This text has evidently been prepared for the purpose of giving to American boys instruction on the use of the principal woodworking tools.

Sixteen lessons minutely detailed are provided for, and it is stated that they were given to the ninth grade of the public schools at Springfield, Mass. It appears that throughout the text there are numerous diversions from the more usual methods of teaching woodwork.

Although the work as laid out may have brought good results where used, it is believed that the volume would not be of much value in Philippine schools where an effort is being made to acquire more extensive training.

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SEWING ILLUSTRATED.

[By Louise J. Kirkwood. 88 pages. Published by American Book Company.]

"Illustrated Sewing Primer with Songs and Music," by Louise J. Kirkwood, is a small volume of 88 pages only, the first 26 being given to questions and answers on the preparation for sewing, kinds of stitches, their uses and how to make them. It contains very good illustrations of the different kinds of stitches. This part of the book might profitably be used by sewing teachers of primary grades.

The greater part of the book is given to sewing songs with music. The volume also contains ten lessons on dress-making and learning to fit. These lessons would be of no use to the Filipino girl as the waist taken as a model is such as would never be used by her.

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A REVIVAL OF IRISH LACE.

A representative of one of the biggest Irish lace houses reports that advices from his house and also advices from Paris indicate a distinct revival in the demand for Irish, especially in the continental and South American markets. The call is especially, however, for real Irish and several orders from French houses running up into the thousands of pounds are reported as evidence of the fact that Irish is definitely taking hold again. It is said that a large amount of the real goods is being used in the underwear trade but that also a very strong demand is found for Irish collars of up-to-date types. If this demand has not made itself felt in America it is expected in the near future it will do so. (*Lace and Embroidery Review.*)

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PAPER AND CARDBOARD CONSTRUCTION.

[By George Fred Buxton and Fred L. Curran. Published by The Manual Arts Press. Peoria, Ill. 191 pages. Illustrated.]

This volume has been prepared for the use of teachers in primary handwork in public schools. Definite instructions are given for handling paper and cardboard construction in primary grades. The work as planned covers book, box card and envelope problems. These subjects are taken up in detail and the instructions cover the laying out, cutting, folding, sewing, and gluing.

It is believed that the ground covered in this volume is too extensive for general use in Philippine schools, but that it may serve as excellent reference data for a teacher in charge of primary industrial training.

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NUTRITION AND DIET.

[By Emma Conley. 208 pages. Illustrated. Published by The American Book Company.]

"Nutrition and Diet" deals with the composition of the body and of foods, classification of foods, digestion, nutritive and fuel value of foods and their digestibility, the balanced meal, planning of meals, menus, and classification of foods for detailed study.

It is intended for classes that have had at least one-half year's work in practical cooking and some knowledge of foods. This book is supposed to be used to complement the work in cooking if it is taught as a high-school subject. The book might be of some value to teachers as a reference book but would be of little use in the hands of the pupils.

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GOOD BOOKS FOR BOYS AND GIRLS.

Hawk: The Young Osage. By C. H. Robinson.
Ralph Somerby at Panama. By Francis Raleigh.
Our Little Athenian Cousin of Long Ago. By Julia Darrow Cowles.
Polly-Anna. By Eleanor A. Porter.

The above story books published by L. C. Page and Co., Boston, will be found of value to any school library that desires to place wholesome stories in the hands of its boy and girl readers.

Sharp sandpaper is one good thing, but sharp planer knives are another and they should come first to make the best combination of the two for finishing wood. (*The Furniture Manufacturer and Artisan.*)

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To take lumber out of the dry kiln ahead of time to accommodate a rush order is a poor way to make ends meet, for there is trouble enough with joinery even when the drying is made thorough.

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EARNING AND LEARNING.

The criticism that the public school unfits boys for wage earning will soon be a memory if high schools can point to figures such as have been given out by the Lane Technical High School, Chicago.

Statistics compiled by Principal W. J. Bogan show that 800 boy students of the school earned the sum of $31,583.12 during their vacations, while 125 extension students, working as plumbers' apprentices, earned an additional $9,275, making the grand total earned $40,858.12.

A list of the jobs held by some of the 800 regular students includes a wide range of occupations: Clerks, 150; office boys, 95; messengers, 50; bell boys, 10; farmers' assistants, 50; machine-shop helpers, 35; pattern-shop helpers, 10; engineers' helpers, 15; elevated railroad guards, 8; chauffeurs, 20; electric-shop helpers, 35; newspaper carriers, 40; moving-picture operators, 15; express-wagon boys, 10; drafting offices, 20; florists' helpers, 10; carpenters' helpers, 18; collectors, 20; teachers, 2; forest service, 1; tree surgeon, 1.

If these figures indicate anything they show clearly that the vocational high school is not only fitting boys to hold jobs successfully but also that it is instilling in them a spirit of independence and manliness. But what is more important, the school is giving them the true conception of the dignity of honest work which makes them take any respectable temporary job. (*School Board Journal.*)

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TWO FAMOUS AGRICULTURAL EDUCATORS.

There are many men who have greatly aided in the development of a better farm life in the United States of America, but from those who are our contemporaries two stand out as having been interested in lines of work which must ultimately be responsible for a similar outcome in the Philippines. These men are the late Seaman A. Knapp, the organizer of practical farm demonstration work, and Luther Burbank, the most wonderful developer of plants. It is believed that the readers of this number of THE PHILIPPINE CRAFTSMAN will find certain incidents of their lives to be interesting.

SEAMAN A. KNAPP.

This man who sought freedom and independence of the soil was born in Essex County, New York, in December, 1833. As a boy he attended the public schools and later graduated from the Union College, Schenectady, New York. He taught school for several years and at the age of 32 moved to Iowa and settled on a farm. He edited a farm paper and was the first professor of agriculture in Iowa College. Later he organized a development company which purchased a million acres of land in the State of Louisiana and established a prosperous agricultural community.

He conducted rice demonstrations and diversified farming. His work attracted the attention of the Government authorities and in 1898, at the age of 65, he was sent to visit China, Japan, and the Philippines to make rice investigations. In 1901 he made a second trip and in the same year went to Europe and later to Porto Rico. Thus in 1903, at the age of 70, he had not yet begun the great work which made him famous, although much time and study had been devoted to it.

In 1903 the Mexican boll weevil began to cause such destruction in the Texas cotton fields as to bring about the sending of Dr. Knapp to fight its ravages. He took a piece of land on a farm and demonstrated that cotton could be grown in spite of the weevil. The next year the entire state was organized. In a few years his work had covered the entire South. At the time of his death in 1911 this great work extended over many States, and under a force of 1,000 assistants an enrollment of 100,000 farmers, 75,000 boys in corn clubs, and 25,000 girls in tomato and canning clubs was secured. It is interesting to know that throughout his work great emphasis was given the practical demonstration work by school pupils at their homes. A comparison of the results he secured with what the public schools in the Philippines are doing, as given in other articles in this number, reflect credit upon our work.

LUTHER BURBANK.

The man who is known all over the world as a man who has achieved distinction in working with plants was born in Lancaster, Massachusetts, in March, 1849. His parents were so poor that Luther attended only the public elementary school and early in life went to work in a factory. He cared little for tools and machinery and grew vegetables for the market during his spare time. He noticed that the seed balls on the tops of some potato vines were better than others and by selecting the best ones and planting them, he developed the famous "Burbank" variety of potato. It is said that this potato has been worth millions of dollars to the world.

He received a partial sunstroke while working in the garden and was forced to give up this kind of work. Having sold his rights in the new potato for $150, he went to California, but not being very strong and as work was scarce, he was compelled to work very hard. At one time it is said that he was employed to clean out poultry houses and many times had to sleep in them. At this time he contracted a fever, but a kind lady in the neighborhood helped him and he slowly recovered his health. Having later secured employment in a nursery and saved a small sum of money he started a nursery of his own. At this time there came an order for 20,000 prune trees. He accepted the order but did not have that many trees old enough. As it takes three years to grow prune trees he thought out a plan of making the almond tree bear prunes as that tree could be planted at once. He placed prune buds in young almond trees and startled the world with his success.

For many years his great talent has been devoted to plant breeding. He has improved trees, flowers, vines, shrubs, vegetables, fruits, and nuts. Constant improvement upon nature has been Mr. Burbank's life work. He has improved the potato, the plum, chestnut, many berries, and a large number of flowers. He is now one of the famous men of the world, and lives and works at his place near Santa Rosa, California, a part of which is his original nursery.

Last year his brother who is associated with him in this work spent some time in the Philippines. Burbank's success is more than interesting to those who are cognizant of the great need for more attention to plant breeding in the Philippines.

[NOTE.—Data for these sketches were taken freely from Bulletin No. 43, United States Bureau of Education.—EDITOR.]

ARTS AND CRAFTS IN THE DUTCH EAST INDIES.

The Bureau of Education has recently received a number of volumes of the "De Inlandsche Kunstnijverheid in Nederlandsch-Indie." These are written by Mr. J. E. Jasper, government official for the matters of native arts and crafts. The publications are richly illustrated and describe the household crafts of the Dutch East Indies.

The work of investigating the crafts of these islands is similar to that now being accomplished by the Bureau of Education but it has no close connection with schools and instruction as the work in the Philippines has. The following is an extract from the letter written by Mr. Jasper to the Director of Education in transmitting the publications.

"The encouragement of native applied art, that is practiced over the Archipelago as domestic work, has been left to private initiative. Many people, Europeans as well as natives, are dealing in home-art products, but most of them, being no artists in the real sense and aiming only toward commercial ends, cause a degeneration in original technic and ornament. So, the Government has ordered a technical, artistic investigation, in consequence of which the principal technics and ornaments of home art are to be fixed in a series of well-illustrated descriptions of the following subjects: I. The art of making mats and basketry. II. The art of weaving and lace making. III. The art of batik. IV. The art of making metalwork (gold, silver, copper, and brass ware) and damaskeened arms. V. Other branches of home art.

"Charged with the above-mentioned investigation, I have already written the first two of the related books, the complete titles of which are: 'De Inlandsche Kunstnijverheid in Nederlandsch-Indie, Door J. E.

Jasper En Mas Pirngadie.' 'I Het Vlechtwerk, II De Weefkunst. Van Regeeringswege Gedrukt En Uitgegeven Te 'S-Gravenhage Door De Boek- & Kunstdrukkerij V/H Mouton & Co.-'S-Gravenkage, 1912.'

"The whole series of descriptions will be finished after some years. This means, in my opinion, the conservation of the craft's originality and it should precede the real development in the industries.

"With regard to the manual instruction, I might say that there is but one Government school (established about six years ago) in Ngawi (Java), where the branches of making basketry and earthenware, horn-turning, wood-carving and designing are taught to native pupils who have graduated from elementary schools. The modest purpose of the so-called native home-art school of Ngawi is to give those pupils such practical instruction, that they will be able to make a little money by doing handwork at leisure.

"Supposing you desire to obtain information only on artistic instruction, I leave the three trade schools of Batavia, Samarang, and Sourabaya out of consideration, these establishments being destined for the training of blacksmiths, carpenters, and the like. There exist also some private home-art schools with or without grants from the Government, and so are to be mentioned: The school for weaving at Lagoeboti (Sumatra), founded for Batak women and girls by a missionary society, a school for weaving at Koepang (Timor) founded by the Franciscan nuns, some schools for weaving in Padang (Sumatra), some schools for lace making in Palembang and Atjeh, and the schools for making silver and brass ware and wood-carving, lately opened in Kloengkoeng (Bali), all for native pupils.

"Moreover there are some societies that manage a business in native arts and crafts, and of which are to be mentioned: 'Boeatan' in the Hague, 'Oost en West' in Batavia, 'Jogjasche Kunstarbeid' in Jagjakarta, 'Toko Tontonnan' in Sourabaya (especially for brass ware).

"In order to increase the sale of home-art products, several fairs have been organized at intervals in Sourabaya, Samarang, Batavia, Makasser, Padang Pandjang, Fort de Kock, Koetaradja, for which enterprises the Government usually advances the capital stock, yielding no interest.

"A definite organization or a real public service for the development of native handwork does not yet exist, but will probably soon be taken into consideration by the Government.

"In my opinion and so far as I know the native people and their home art, such an organization ought to be made by a government central institution with a view to encourage private workshops under good native technical and artistic managements and to the founding of special societies or coöperations.

"After practical skill is formed in that way and the natives themselves entirely recognize the necessity of the art's development, the special task of the government comes more to the front. For, every special school of art or industry ought to be in relation with existing workshops. Such has already been declared in 'The Art and Art Industrial System in Austria,' published in consequence of the third international congress for the teaching of art and drawing, that took place in London, 1908.

"Finally, I will give here below the following short quotation from the above-mentioned book: 'One of the most important principles in the administration of all the schools (schools of art and industry) is that the entire industrial education is based on the close relation and mutual assistance of school and workshop and, as far as possible, on the practical demands of industrial life.'"

BUREAU OF EDUCATION PUBLICATIONS.

(Abbreviated list.)

ANNUAL REPORTS:

First to Tenth Annual Reports of the Director of Education. (Supply exhausted.) 1901–10.

Eleventh Annual Report of the Director of Education. 1911.

Twelfth Annual Report of the Director of Education. 1912.

Thirteenth Annual Report of the Director of Education. 1913.

BULLETINS:

1 to 30. Various subjects relating to the early activities of the Bureau. Editions for the most part exhausted and material obsolete.

31. School and Home Gardening. 1910. Revised, 1913.
32. Courses in Mechanical and Free-hand Drawing. 1910.
33. Philippine Hats. 1910. (Edition exhausted.)
34. Lace Making and Embroidery. 1911.
35. Housekeeping and Household Arts. 1911. (Edition exhausted.)
36. Philippine Normal School—Catalogue and Announcement. 1911. (Edition exhausted.)
37. School Buildings and Grounds. 1912.
38. School Buildings—Plans, Specifications, and Bills of Material. 1912.
39. A Manual of Free-hand Drawing for Philippine Primary Schools. (In course of preparation.)
40. Athletic Handbook. 1911. Revised, 1913.
41. Service Manual of the Bureau of Education. 1911. (Edition exhausted.)
42. Intermediate English. 1911.
43. Philippine School of Arts and Trades—Catalogue. 1912.
44. Libraries for Philippine Public Schools. 1912.
45. The School of Household Industries. 1912.
46. The Industrial Museum, Library, and Exhibits of the Bureau of Education. 1913.
47. Good Manners and Right Conduct. 1913.
48. A Course in Civics. (In course of preparation.)
49. Industrial Fiber Plants of the Philippines. 1913.
50. Arbor Day and School Holidays. (In course of preparation.)
51. Philippine School of Commerce. 1913.

BULLETINS—Continued.

52. Philippine School of Arts and Trades—Nautical Department. 1913.
53. Elementary Course in Plain Sewing. 1913.

THE TEACHERS' ASSEMBLY HERALD:

Volumes I–V. 1908–1912. (Supply exhausted.)

Volume VI. 1913. (Supply limited.)

THE PHILIPPINE CRAFTSMAN:

Volume I. 1912–13. (Supply limited.)

Volume II. (Now current.)

TEXTBOOKS:

Woodworking—A Manual of Elementary Carpentry for Philippine Public Schools. 1908.

Selected Short Poems by Representative American Authors. 1911. Reprint, 1913.

Commercial Geography; the Materials of Commerce for the Philippines. 1911.

Samuel Johnson, Macaulay; Self-Reliance, Emerson; Gettysburg Address, Lincoln. 1911. Reprint, 1913.

Supplementary Problems for Trade Schools and Trades Classes in the Philippine Public Schools. 1913.

Supplementary Problems for Domestic Science Classes. 1913.

Housekeeping—A Textbook for Girls in the Public Schools of the Philippine Islands. (In course of preparation.)

Economic Conditions in the Philippines. 1913.

MISCELLANEOUS:

Domestic Science—A Guide to Practical Instruction in Housekeeping, Sewing, Cooking, and Laundering in Grades Three and Four of the Philippine Public Schools. 1908.

Some Recipes for Preparing Jellies, Preserves, Pickles, and Candies from Philippine Fruits. 1911. (Supply exhausted.)

Second and Third Annual Reports on Private Schools and Colleges of the Philippine Islands. 1911 and 1912. (Supply exhausted.)

A Statement of Organization, Aims, and Conditions of Service in the Bureau of Education. 1911. (Several editions printed at Manila and Washington.) (Supply limited.)

A Talk on Health Conditions in the Philippines. Dr. Victor G. Heiser, Director of Health. 1912.

PHILIPPINE CRAFTSMAN REPRINTS:

1. Philippine Mats. 1913.